

**DOCUMENT TYPE**

**TITLE:** Draft Meeting Minutes of May 3, 2002 Plenary Session of T1P1  
**SOURCE\*:** Committee Administrator  
**PROJECT:** Administrative

---

**ABSTRACT**

This document contains the draft meeting minutes of the May 3, 2002 plenary session of T1P1 in Key West, Florida.

---

---

**NOTICE**

This is a draft document and thus, is dynamic in nature. It does not reflect a consensus of Committee T1-Telecommunications and it may be changed or modified. Neither ATIS nor Committee T1 makes any representation or warranty, express or implied, with respect to the sufficiency, accuracy or utility of the information or opinion contained or reflected in the material utilized. ATIS and Committee T1 further expressly advise that any use of or reliance upon the material in question is at your risk and neither ATIS nor Committee T1 shall be liable for any damage or injury, of whatever nature, incurred by any person arising out of any utilization of the material. It is possible that this material will at some future date be included in a copyrighted work by ATIS.

---

**TECHNICAL SUBCOMMITTEE T1P1  
WIRELESS/MOBILE SERVICES AND SYSTEMS  
May 3, 2002  
Key West, Florida**

**1 Call to Order/Quorum Call/Opening Remarks**

Asok Chatterjee (Ericsson), Chair of T1P1, called the meeting to order at 8:03 a.m. ET.

Quorum Call

Member organizations had answered to roll call prior to the start of the meeting, and the Chair announced there was a quorum. Out of 36 voting members listed on the roster, 21 registered and were represented by someone listed on the roster, or by someone duly authorized without involving multiple votes. By acclamation, the membership approved one request for multiple votes for Don Zelmer, Cingular, as designated representative for BellSouth. Letters are on file with the Secretariat for all designated representatives. With the approval of the multiple votes, the number of T1P1 members represented totaled 22. The attendance at this session is recorded in Attachment 1 to these minutes.

**2 Approval of Agenda and IPR Statement**

The meeting agenda, T1P1/2002-039R1, was approved without modification.

Patent Disclosure

The Chair stated T1's policy with respect to patents as follows:

Other than reaffirming their company's previously stated position, does anyone wish to make any statement regarding IPR on standards being worked in this committee?

There was no response.

**3 Approval of Previous Meeting Minutes**

The minutes of the January 25, 2002 T1P1 meeting, T1P1/2002-034, held in Kiawah Island, South Carolina, were approved without modification.

**4 Approval of 3GPP Specifications**

Don Zelmer (Cingular), Chair of T1P1.2, explained that T1P1/2002-018R1 identifies a file available on the Committee T1 Web site containing 3GPP specifications to be approved as T1 specifications at this meeting. He noted that two interim T1P1.2 meetings had been held to discuss these specifications, and that the files had been posted prior to this meeting of T1P1 for review. Mr. Zelmer asked for approval for these specifications to be T1 Specifications. There were no objections, and the Chair declared the files approved.

**5 T1AG/T1 Actions Relating to T1P1**

- The Chair reported that elections had occurred at the March 2002 Committee T1 Meeting and the T1P1 leadership team remained the same with Asok Chatterjee as Chair and Mark Younge (VoiceStream) as Vice Chair.

- The Chair informed T1P1 that Committee T1 and the T1AG were embarking on a close look at what Committee T1 will become in the coming years. This activity also includes a review and potential revision of the mission and scope of Committee T1. He noted that the issue was being actively worked at this time, and he encouraged the active participation of all members of T1P1.
- The Chair reported on the work that had occurred at the off-site meeting of the T1AG, including the five teams that had met to address different issues in Committee T1. These issues and recommendations can be found in T1AG/2002-020. The teams focused on the direction and focus of Committee T1, the alternatives to a contribution driven environment, the development of implementable standards, the implementation of meaningful project management procedures, and the creation of a process that is friendly to new players.

## **6 T1P1 Surveillance Ad Hoc Group Report**

Ron Ryan (Nortel Networks) presented T1P1/2002-050, the activity summary report from the T1P1 Surveillance Ad Hoc. This report summarized activities occurring regarding Lawfully Authorized Electronic Surveillance (LAES) within T1P1 as well as within 3GPP. Mr. Ryan then referred to T1P1/2002-051, the report from the April 30-May 2, 2002 meeting of the T1P1 SAH in Key West, Florida.

Mr. Ryan detailed some unfinished business that was discussed in the T1P1 SAH that had not been concluded at previous meetings. He reported on T1P1/2002-038 which was a contribution dealing with reporting SMS-GMSC/IWMSC redirected SMS messages not intercepted at an SGSN. Mr. Ryan noted that although extensive discussions were held, consensus could not be reached on this topic, and FBI/CIS requested that the following comment be included in this report:

“FBI-CIS strongly objects to the decision of T1P1 not to address the deficiency in TS 33.108 resulting from the designation of the SGSN as the sole point of interception for SMS communication-identifying information and communication content. FBI-CIS believes the failure to consider alternative points of interception such as the SMS-SC, SMS-GMSC or SMS-IWMSC will result in the loss of critical lawfully authorized surveillance information since this capability is already supported by J-STD-025 for circuit-switch SMS.”

Mr. Ryan then summarized new business that was discussed in the T1P1 SAH, including T1P1/2002-049. This contribution dealt with the Normative/Informative status of Annex G in 3GPP TS 33.108. Significant discussion occurred on this subject in the T1P1 SAH, but consensus could not be reached. The FBI/CIS requested that the following comment be included in this report:

“FBI-CIS strongly objects to the decision of T1P1 not to move forward with a request to 3GPP SA3 LI to reconsider its prior disposition of a consensus contribution (S3LI02-41) from the membership of T1P1 that proposed the standardization of additional delivery mechanism options (i.e., normative) for the delivery of intercept related information and communication content to LEAs. The contribution, as formulated by T1P1 (S3LI02-41), proposed the standardization of additional delivery mechanism options (as normative text) complementary to already existent options in the specification which are normative. FBI-CIS believes the failure to pursue the standardization of the additional delivery mechanism options would negatively impact the capability of LE to effectively perform lawfully authorized surveillance information.”

Mr. Ryan requested a liaison to TR45 (T1P1/2002-068) regarding wording to be submitted for Revision B of J-STD-025. This liaison was approved without objection.

## **7 T1P1.2 GSM/3G Radio Working Group Report**

Don Zelmer (Cingular), Chair of T1P1.2, and Margaret Livingston (Nokia), Vice Chair of T1P1.2, presented T1P1/2002-056, a report on the activities in T1P1.2. They reported that in addition to the meeting of T1P1.2, they also met jointly with T1P1.3 and TIA's TR46.2. Mr. Zelmer requested a liaison (T1P1/2002-053) to Ray Hapeman, Chair of Committee T1, to inform him of the approved 3GPP specifications to be forwarded for the RSPC and transformed into T1 deliverables. Mr. Zelmer noted that the meeting of T1P1.2 covered activities occurring in the 3GPP TSG RAN and GERAN, as well as reviewing a presentation of activities in TR46.2. Mr. Zelmer noted that this would be Ms. Livingston's last meeting with T1P1, and the T1P1 Chair wished her the best of luck on all her future endeavors. She received a warm round of applause from the group.

## **8 T1P1.3 GSM/3G System and Network Working Group Report**

Gary Jones (Voicestream) Chair of T1P1.3 and Sonia Garapaty (Nortel Networks) Vice Chair of T1P1.3 presented T1P1/2002-061, a report on activities in T1P1.3.

Mr. Jones noted that at the last meeting of T1P1 a liaison was forwarded to T1S1 regarding the inclusion of different shapes describing a calling party's location when dialing 911. T1S1 responded with a liaison on this matter to NENA and APCO as well as a reply to T1P1 suggesting that they work directly with NENA and APCO on this matter, and inform T1S1 of the outcome. T1P1.3 requested a liaison (T1P1/2002-063) to the newly formed Emergency Services Interoperability Forum (ESIF), with copies to NENA, APCO, and T1S1, requesting additional information. It was suggested that the liaison be sent directly to NENA with a copy to ESIF, and with this modification, the liaison was approved.

Mr. Jones reported that T1P1.3 worked in conjunction with T1P1.2 and T1P1.4 to develop a liaison (T1P1/2002-064) to IEEE 802.16 to investigate the proposed change in the mission and scope of IEEE 802.16 that could cause a possible overlap in the work of other groups such as T1P1. This liaison was approved.

Mr. Jones discussed a liaison received by T1P1 from the OBF regarding recording and signaling changes required to support billing. Mr. Jones requested a liaison (T1P1/2002-065) to GSM NA requesting that they re-evaluate the need for a standardized JIP parameter in light of the request from OBF, and would request a response back to T1P1 with any need for standardization. This liaison was approved.

Mr. Jones reported on discussion in T1P1.3 regarding the output of the OHG IP Core Network Harmonization Workshop. He requested a liaison (T1P1/2002-062) to the T1 delegation of 3GPP asking the delegation to endorse a set of guidelines for dealing with IMS/OSA harmonization between 3GPP and 3GPP2. This liaison was editorially revised by T1P1, and the revised version, T1P1/2002-062R1, was approved.

## **9 T1P1.4 Wireless Wideband Internet Access**

Clif Barber (Tantivy), the acting Secretary of T1P1.4, reported that the Acting Chair, Mel Woinsky (Tantivy), was unable to be in attendance at this meeting due to health reasons. Mr. Barber presented T1P1/2002-057, a report on the activities in T1P1.4

Mr. Barber noted that the balloting had closed on the WWINA Stage 1 Air Interface Requirements (T1P1.4/2002-015) with no negative votes, and only two editorial comments. These changes were incorporated, and Mr. Barber requested permission for the publication of this document, T1P1/2002-058, as a T1 Technical Requirements document. This document was approved without objection.

Mr. Barber requested a correspondence to Tellabs noting that their editorial comments were worked into the final version of the WWINA Stage 1 Air Interface Requirements, and this correspondence was approved without objection.

Mr. Barber notified T1P1 of an addition to the T1P1.4 workplan to include the development of a Session Services ID Technical Report document. The updated workplan could be found in T1P1/2002-060.

Mr. Barber requested permission for an interim meeting of T1P1.4 on June 20, 2002 from 11 a.m. to 4 p.m. Eastern Time. This meeting would be held to review four sections of the I-CDMA Stage 3 text, review the draft Session Services ID Technical Report document and continue the discussion of WWINA Network Interfaces. This interim meeting was approved without objection.

## **10 Election of T1P1 Working Group Chairs and Vice Chairs**

The Chair of T1P1 thanked all who had served as working group leaders over the past two years, including Mr. Jones, who he noted would not be running for a leadership position. Mr. Jones was given a warm round of applause from the group. The Chair reviewed the procedures for casting votes and opened the floor for additional nominations to the open positions. The following people ran for office unopposed and were elected by acclamation to the below-listed positions:

T1P1.2 Chair	Don Zelmer	Cingular Wireless
T1P1.3 Chair	Sonia Garapaty	Nortel Networks
T1P1.4 Chair	Mel Woinsky	Tantity Communications
T1P1.4 Vice Chair	Brian Kiernan	InterDigital Communications

The newly elected leaders were given a round of applause. The T1P1 Chair noted that the following positions remained vacant, and he encouraged volunteers to step forward to fill these very important slots in the near future:

T1P1.1	Chair and Vice Chair
T1P1.2	Vice Chair
T1P1.3	Vice Chair

## **11 Other Business**

The Chair asked if there was any other business to be discussed. Mr. Jones noted that he was working on a report to be included in the Rapporteurs Report to Working Party 8F, and he asked T1P1 participants to provide him with any information they would like included.

The Chair noted that the following standards were up for reaffirmation, revision, or withdrawal, and noting feedback he had received during the week, and also based on his consultations with potentially interested parties over the past 6 months, he recommended that the following be withdrawn:

- J-STD-014a-1996 –Personal Access Communication Systems Unlicensed Version A Air Interface Standard Supplement
- J-STD-014b-1996 –Personal Access Communication Systems Unlicensed Version B Air Interface Standard Supplement
- J-STD-021-1996 –Recommended Minimum performance Standards of Personal Access Communications System Subscriber Units
- J-STD-022-1996 –Recommended Minimum Performance Standards of PACS Radio Ports

These T1P1 Meeting Minutes are draft and subject to change and approval at the next T1P1 meeting. Any such changes will be reflected in the "Approval of the Meeting Minutes" section of the subsequent T1P1 Meeting Minutes.

These standards were recommended for withdrawal without objection.

**12 Next T1P1 Meeting**

The next T1P1 meeting will be hosted by Committee T1 and will be held July 23-26, 2002 in Westminster, Colorado. All the meeting details can be found posted to the T1 web site in T1P1/2002-042.

The T1P1 Leadership meeting, open to all, will be held Tuesday evening, July 23, 2002 beginning at 5:30 p.m. MT. When making travel arrangements please remember that the meetings will begin on Tuesday morning.

**13 Adjournment**

The Chair thanked TIA for the wonderful location and facilities.

Having no further business, he declared the meeting adjourned at 10:36 a.m. EDT.

Nicole Butler  
Committee Administrator

**T1P1 ATTENDANCE MAY 3, 2002**

Initial Quorum	Present	Member Company	First Name	Last Name	Designation	Designee Name
		Alcatel USA Inc.	Francois	Courauu	VR	
		Alcatel USA Inc.	Laurent	Cruchant	VA	
1	1	AT&T Wireless Service	Peter	Musgrove	VR	
		AT&T Wireless Service	Brian	Daly	VA	
	1	BellSouth Telecommu	Gregory	Wos	VR	Don Zelmer
1	1	C.S.I. Telecommunica	Michael S.	Newman	VR	Asok Chatterjee
		C.S.I. Telecommunica	Thomas G.	Croda	VA	
1	1	Cingular Wireless LLC	Don	Zelmer	VR	
		Cingular Wireless LLC	Marc	Grant	VA	
1	1	Conexant Systems, In	Quentin C.	Cassen	VR	
		Conexant Systems, In	Arun	Arunachalam	VA	
1	1	Defense Info. Systems	Chris	Fitzgerald	VR	
1	1	Ericsson Incorporated	Stephen	Hayes	VR	
		Ericsson Incorporated	Pierre	Truong	VA	
		Harris Corporation	Marlis	Humphrey	VR	
		Inet Technologies Inc.	Charles	Moore	VR	
		Inet Technologies Inc.	Mark	Hejnicky	VA	
		Intelsat	Mark T.	Neibert	VR	
1	1	InterDigital Communic	Brian	Kiernan	VR	
		InterDigital Communic	Gil	LaVean	VA	
		LG Sansys, Inc.	Hee Joung	Lee	VR	
		LG Sansys, Inc.	Mark	Hosford	VA	
1	1	Lucent Technologies	Robert B.	Beeson	VR	
		Lucent Technologies	Jane	Brownley	VA	
		Microcell Connexions	Venkatesh	Sampath	VR	
		Microcell Connexions	Besma	Smida	VA	
1	1	Motorola Inc.	Brye	Bonner	VR	
1	1	National Communicati	Jean	Trakinat	VR	
		National Communicati	Nicholas	Andre	VA	
		Navini Networks	Kenneth W.	Davey	VR	
		Navini Networks	Mark	Beaton	VA	
1	1	NEC America Incorpor	Dia	Helmy	VR	
1	1	Nokia Telecommunica	Ed	Ehrlich	VR	
		Nokia Telecommunica	Margaret	Livingston	VA	
		Nokia Telecommunica	Chris	Wallace	VA	
		Nortel Networks	Subhash	Patel	VR	
1	1	Nortel Networks	Ronald D.	Ryan	VA	
1	1	Panasonic-MMCD	Mike	Karimian	VR	
		Panasonic-MMCD	Rob	Winstanley	VA	
		Paradyne Corporation	Phil	Kyees	VR	
1	1	Qualcomm Incorporated	Mark	Epstein	VR	Wing Yeung
		Qualcomm Incorporated	Ed	Tiedemann	VA	
1	1	Qwest	Richard	Prince	VR	Sonia Garapaty
		Qwest	James L.	Eitel	VA	
		Rogers Wireless Inc.	Edward	O'Leary	VR	
		Rogers Wireless Inc.	Tak Wing	Wan	VA	
1	1	SBC Communications	Randolph	Wohlert	VR	
		SBC Communications	Chuck	Bailey	VA	
		Siemens Info & Comm	Stephen	Edge	VR	
		Siemens Info & Comm	Frank	Gay	VA	
		Sprint - Long Distance	James	Lord	VR	
		Tantivy Communicatio	Mel	Woinsky	VR	
1	1	Tantivy Communicatio	Clifton J.	Barber	VA	
1	1	Telcordia Technologie	Jim	Garrahan	VR	
		Telcordia Technologie	Cliff	Halevi	VA	
1	1	Tellabs Operations, In	Brian	Yarger	VR	

**T1P1 ATTENDANCE MAY 3, 2002**

Initial Quorum	Present	Member Company	First Name	Last Name	Designation	Designee Name
		Tellabs Operations, In	Joel	Butz	VA	
		TELOS Technology	Steve	Williams	VR	
		TELOS Technology	Brad	Long	VA	
		TruePosition Inc.	Thomas	Ginter	VR	
		TruePosition Inc.	Rhys	Robinson	VA	
		Verizon Communicatio	Wendy	Pugh	VR	
1	1	Voicestream Wireless	Gary K.	Jones	VR	
		Voicestream Wireless	Mark	Younge	VA	
		Voyan Technology	Michail	Tsatsanis	VR	
		Voyan Technology	Rolf	Fiebrich	VA	
21	22					

Quorum Requirement = 12

		3Com	Fred	Lucas	0	
		Acterna	Michael	Lewis	0	
		AirNet Communication	Terry	Williams	0	
		Beatnik, Inc.	Chris	Grigg	0	
		Bell Canada	P. Norman	Smith	0	
		Broadcom Corporation	Vladimir	Oksman	0	
		CDMA Development G	Sam	Samra	0	
		CellGuide Ltd.	Nir	Joseph	0	
		Cisco Systems	Cedric	Druce	0	
		Compaq Computer Co	John L.	Schantz	0	
		Crosskeys Systems C	Peter	Cook	0	
		dynamicsoft Inc.	Dean	Willis	0	
1	1	Fujitsu America Inc.	Hirohiko	Yamamoto	0	
		Inmarsat	Roy	Blane	0	
		Juniper Networks, Inc.	Elizabeth	Lytle	0	

**T1P1 ATTENDANCE MAY 3, 2002**

<b>Initial Quorum</b>	<b>Present</b>	<b>Member Company</b>	<b>First Name</b>	<b>Last Name</b>	<b>Designation</b>	<b>Designee Name</b>
		Next Level Communic	Sabit	Say	o	
		RealNetworks	Jeremy	Worley	o	
		SnowShore Networks,	Eric	Burger	o	
		Symmetricom Inc.	Don	Skipwith	o	
		Tekelec Inc.	Virgil	Long	o	
		Tellium, Inc.	Krishna	Bala, PhD	o	
		Verilink Corporation	Steven E.	Turner	o	
		WorldCom	John	Gallant	o	
		Zarlink Semiconductor	Maamoun	AbouSeido	o	

Observers

T1P1 Plenary Attendees  
Key West, Florida  
May 3, 2002

Name	Organization	Phone#	E-Mail Address
Stephen Hayes	Ericsson Inc.	972-583-5773	<a href="mailto:Stephen.hayes@ericsson.com">Stephen.hayes@ericsson.com</a>
Clifton Barber	Tantivy	404-608-1977	<a href="mailto:Cbarber@tantivy.com">Cbarber@tantivy.com</a>
Wing Yeung	Qualcomm Inc.	858-587-1121	
Peter Musgrove	AT&T Wireless Services	425-580-6875	<a href="mailto:Peter.musgrove@attws.com">Peter.musgrove@attws.com</a>
Don Zelmer	Cingular Wireless LLC	404-236-5912	<a href="mailto:Don.zelmer@cingular.com">Don.zelmer@cingular.com</a>
Chris Fitzgerald	Defense Information Systems	732-427-6884	<a href="mailto:Fitzgerc@ftm.disa.mil">Fitzgerc@ftm.disa.mil</a>
Pierre Troung	Ericsson	972-583-5633	<a href="mailto:Pierre.truong@am1.ericsson.se">Pierre.truong@am1.ericsson.se</a>
Brian Kiernan	InterDigital Communications		
Robert Beeson	Lucent Technologies	623-572-4715	<a href="mailto:Rbeeson@lucent.com">Rbeeson@lucent.com</a>
Brye Bonner	Motorola Inc.	847-576-5920	<a href="mailto:Brye.bonner@motorola.com">Brye.bonner@motorola.com</a>
Jean Trakinat	National Communications Systems	703-607-6113	<a href="mailto:Trakinaj@ncs.gov">Trakinaj@ncs.gov</a>
Damodar Anandampillai	NEC America	214-262-3246	<a href="mailto:danandampillai@necam.com">danandampillai@necam.com</a>
Edward Ehrlich	Nokia Telecommunications	972-894-4495	<a href="mailto:Ed.ehrlich@nokia.com">Ed.ehrlich@nokia.com</a>
Margaret Livingston	Nokia Telecommunications	972-894-5740	<a href="mailto:Margaret.livingston@nokia.com">Margaret.livingston@nokia.com</a>
Ron Ryan	Nortel Networks	972-684-5444	<a href="mailto:Rryan@nortelnetworks.com">Rryan@nortelnetworks.com</a>
Donald Codling	FBI/CIS	703-814-4805	<a href="mailto:Dcodling1@askcalea.net">Dcodling1@askcalea.net</a>
Mike Karimian	Panasonic-MMCD	770-338-6246	<a href="mailto:Mkarimian@panasonicatlanta.com">Mkarimian@panasonicatlanta.com</a>
Chris Wallace	Nokia	972-894-4947	<a href="mailto:Chris.wallace@nokia.com">Chris.wallace@nokia.com</a>
Terry Brooks	Nokia	972-894-5991	<a href="mailto:Terri.brooks@nokia.com">Terri.brooks@nokia.com</a>
Jim Garrahan	Telcordia Technologies	732-758-5227	<a href="mailto:Jgarraha@telcordia.com">Jgarraha@telcordia.com</a>
Jim Proctor	Tantivy		<a href="mailto:Jproctor@tantivy.com">Jproctor@tantivy.com</a>
Gary Jones	Voicestream Wireless	760-918-1634	<a href="mailto:Gary.jones@voicestream.com">Gary.jones@voicestream.com</a>
Mark Younge	Voicestream Wireless	760-918-1634	<a href="mailto:Mark.younge@voicestream.com">Mark.younge@voicestream.com</a>
Steve Mills	Hewlett-Packard		<a href="mailto:Steve_mills@hp.com">Steve_mills@hp.com</a>
Sandra Lopez	Telcordia		
Brian Yarger	Tellabs	630-512-8475	<a href="mailto:Brian.yarger@tellabs.com">Brian.yarger@tellabs.com</a>
Sonia Garpaty	Nortel Networks	972-685-5110	<a href="mailto:Sonia.garapaty@nortelnetworks.com">Sonia.garapaty@nortelnetworks.com</a>
Asok Chatterjee	Ericsson	925-737-5849	<a href="mailto:Asok.chatterjee@ericsson.com">Asok.chatterjee@ericsson.com</a>
Quent Cassen	Conexant Systems Inc.	949-483-4177	<a href="mailto:Quent.cassen@conexant.com">Quent.cassen@conexant.com</a>
Nicole Butler	ATIS	202-662-8663	<a href="mailto:Nbutler@atis.org">Nbutler@atis.org</a>
Sadao Takenaka	Fujitsu	714-764-2560	

**COMMITTEE T1 – TELECOMMUNICATIONS**  
**Committee T1P1**  
**Ad Hoc T1P1.SAH**

**Key West, Florida**  
**May 03, 2002**

**TITLE:** T1P1.SAH Activity Summary Report

**SOURCE:** T1P1.SAH Chair

Ronald D. (Ron) Ryan  
Nortel Networks  
2221 Lakeside Blvd.  
Richardson, Texas 75082

[rryan@nortelnetworks.com](mailto:rryan@nortelnetworks.com)

Tel : 972-684-5444

Fax : 972-684-3775

**PROJECT:** T1P1 Activity on Lawful Intercept for GPRS/UMTS

---

**ABSTRACT**

This document provides a summary report on T1P1.SAH activity since the last T1P1 meeting in January 2002 (Kiawah Island).

---

---

**NOTICE**

This is a draft document and thus, is dynamic in nature. It does not reflect a consensus of Committee T1-Telecommunications and it may be changed or modified. Neither ATIS nor Committee T1 makes any representation or warranty, express or implied, with respect to the sufficiency, accuracy or utility of the information or opinion contained or reflected in the material utilized. ATIS and Committee T1 further expressly advise that any use of or reliance upon the material in question is at your risk and neither ATIS nor Committee T1 shall be liable for any damage or injury, of whatever nature, incurred by any person arising out of any utilization of the material. It is possible that this material will at some future date be included in a copyrighted work by ATIS.

**T1P1.SAH  
Surveillance and Lawful Intercept Ad Hoc  
Activity Summary Report  
May 03, 2002**

This report provides a summary of the T1P1.SAH activity since the last T1P1 meeting in January 2002 (Kiawah Island).

**Background**

T1P1.SAH is reviewing the 3GPP UMTS Lawful Intercept (LI) specifications and contributing material relative to U.S./CALEA requirements and capabilities. The general approach is to propose changes, additions, and enhancements on a 'global' (i.e., non-regional or non-national) basis and avoid where possible U.S./CALEA specific requirements and capabilities. However, when perceived necessary, material is submitted as specific to the U.S. to ensure the 3GPP LI specifications address U.S./CALEA requirements for deployment of GPRS/UMTS systems in the U.S.. The expectations are U.S. specific requirements and capabilities will be incorporated into the 3GPP specifications according to 3GPP procedures.

The following T1P1.SAH and 3GPP SA3-LI meetings have occurred since the last T1P1 meeting in January 2002.

**1. 3GPP SA3-LI Meeting, January 29-31, 2002 (Amsterdam, Netherlands)**

During the January 23-24, 2002 T1P1.SAH meeting on Kiawah Island (see T1P1.SAH meeting report **T1P1/2002-032 R1**), T1P1.SAH developed a contribution to SA3-LI requesting incorporation of material into the 3GPP Lawful Intercept (LI) specifications for U.S./CALEA requirements (see SA3-LI contribution **T1P1/2002-033**). The contribution addressed the following areas:

- |  |  |
|--|--|
| a) Recommendations on PDP Context Modification                               | <i>(accepted)</i>  |
| b) Recommendations on IP Assignment for PDP Context Deactivation END Record  | <i>(accepted)</i>  |
| c) Add Informative annex on U.S. Law Enforcement delivery method preferences | <i>(accepted)</i>  |
| d) Add a 3rd delivery method (TPKT/TCP/IP) for HI2 and HI3                   | <i>(accepted as informative in an U.S. specific annex)</i> |

Consensus was reached to include the proposed delivery methods in a U.S. specific Informative annex. Concern was raised that the 3GPP procedures may not allow Normative regional specific material or annexes. Agreement was reached to seek clarification from 3GPP on the procedures and the annex was left as Informative.

**2. T1P1.SAH Interim Meeting, March 26-28, 2002 (Irving, Texas)**

T1P1.SAH held an interim meeting March 26-28, 2002 in Irving, Texas to develop material as necessary on U.S./CALEA lawful intercept for submission to 3GPP SA3-LI (see T1P1.SAH interim meeting report **T1P1/2002-040 R1**). Contributions were developed and agreed to by T1P1.SAH for submission to the SA3-LI meeting April 09-11, 2002 in Orlando, Florida (see SA3-LI contributions **T1P1/2002-041 R1**).

**3. 3GPP SA3-LI Meeting, April 09-11 (Orlando, Florida)**

The contributions developed by T1P1.SAH (see **T1P1/2002-041 R1**) were presented to SA3-LI for incorporation into the 3GPP LI specifications:

- |                             |                       |
|-----------------------------|-----------------------|
| a) Interception at a GGSN   | <i>(accepted)</i>     |
| b) Serving System Reporting | <i>(accepted)</i>     |
| c) Security Aspects         | <i>(not accepted)</i> |

With regards to the ability to include Normative regional specific text and annexes, it was determined by 3GPP SA that Normative regional specific material, including Normative annexes, could be included in the 3GPP specifications. Thus the U.S. specific annex included in January was allowable and could be Normative. An open issue as to whether the annex should be Normative or Informative remained and was returned to T1P1.SAH for resolution.

There was also concern about the Security Aspects proposed by T1P1.SAH and SA3-LI requested T1P1.SAH to revisit the material and resubmit as necessary.

#### **4. T1P1.SAH Meeting, May 01 (Key West, Florida)**

T1P1.SAH held a regular meeting May 01-02 (see T1P1.SAH meeting report [T1P1/2002-051](#)). A contribution was developed for submission to the SA3-LI meeting in June. A liaison was also developed to TR45 LAES regarding references for GPRS/UMTS for J-STD-025 Revision B. No interim meetings are needed by T1P1.SAH and the group will meet as necessary at the July T1P1 meeting to progress the work.

#### **Plenary action is requested on the following:**

- 1. Approval of liaison to TR45-LAES ([T1P1/2002-068](#)).**

**COMMITTEE T1 – TELECOMMUNICATIONS**  
**Committee T1P1**  
**Ad Hoc T1P1.SAH**

**Key West, Florida**  
**May 01-02, 2002**

**TITLE:** T1P1.SAH May 01-02, 2002 Meeting Report

**SOURCE:** T1P1.SAH Chair

Ronald D. (Ron) Ryan  
Nortel Networks  
2221 Lakeside Blvd.  
Richardson, Texas 75082

[rryan@nortelnetworks.com](mailto:rryan@nortelnetworks.com)

Tel : 972-684-5444

Fax : 972-684-3775

**PROJECT:** T1P1 Activity on Lawful Intercept for GPRS/UMTS

---

**ABSTRACT**

This document provides the meeting minutes for the May 01-02, 2002 T1P1.SAH meeting in Key West, Florida.

---

---

**NOTICE**

This is a draft document and thus, is dynamic in nature. It does not reflect a consensus of Committee T1-Telecommunications and it may be changed or modified. Neither ATIS nor Committee T1 makes any representation or warranty, express or implied, with respect to the sufficiency, accuracy or utility of the information or opinion contained or reflected in the material utilized. ATIS and Committee T1 further expressly advise that any use of or reliance upon the material in question is at your risk and neither ATIS nor Committee T1 shall be liable for any damage or injury, of whatever nature, incurred by any person arising out of any utilization of the material. It is possible that this material will at some future date be included in a copyrighted work by ATIS.

**T1P1.SAH**  
**Surveillance and Lawful Intercept Ad Hoc**  
**Meeting Report**  
**May 01-02, 2002**

## **1 Call to Order and Attendance**

The meeting was convened on May 01, 2002 at 8:45 a.m. Eastern time. Attendance was taken. The terms of reference for the meeting:

progress the work on Lawful Intercept for GPRS/UMTS and develop contributions to SA3-LI as necessary.

## **2 Agenda Review**

The draft agenda (**T1P1/2002-043 R1**) was reviewed, updated, and contributions ordered within the agenda. See attached approved agenda.

## **3 IPR**

The statement on IPR was presented. No comments were received.

## **4 Reports, Liaisons, Correspondence, and Announcements**

- The March 18, 2002 *TI memo on 5-year Revision/Reaffirmation/Withdrawal* was announced and distributed. No action necessary or taken.
- The *FCC 02-108 Order on Remand* for the four vacated Punch List items (**T1P1/2002-047**) was distributed for information. No action necessary or taken. There was discussion on an On/Off toggle (Dialed Digit Extraction) for individual PEN Register capabilities vs an On/Off toggle per warrant. The group felt no action was required at this time.
- The latest version of *3GPP TS 33.108 Handover Interface for Lawful Interception* (**T1P1/2002-049**) was distributed for information. No action necessary or taken.
- The *T1P1.SAH March 26-28, 2002 Meeting Report* (**T1P1/2002-040 R1**) for the meeting in Irving, Texas was distributed for comment. Comments were received and the report updated.
- The April 16, 2002 *TIS1 Liaison on LI Activity* (**TIS1/2002-072 R1**) was distributed for information. No action necessary or taken.
- The March 7, 2002 *TR-45 LAES Liaison* (**T1P1/2002-046**) on summary of CALEA requirements along with attached documents *Summary of CALEA Requirements* and latest draft of *J-STD-025 Revision B* (PN-4465-RV1.4) was distributed for information. No action necessary or taken.

## **4 Unfinished Business**

The following contributions were addressed:

**008-R1** – The contribution was withdrawn by the contributor.

**036** – The contribution was withdrawn by the contributor.

**038** –The contribution deals with reporting SMS-GMSC/IW MSC redirected SMS messages not intercepted at an SGSN.

Consensus could not be reached on a contribution to SA3-LI. Two organizations objected (Motorola and Cingular), three organizations supported (FBI-CIS, Telcordia, and Nortel Networks), and other organizations in attendance expressed no opinion. Cingular indicated they don't believe SMS is subject to CALEA.

The FBI-CIS provided the following comment for the report:

“FBI-CIS strongly objects to the decision of T1P1 not to address the deficiency in TS 33.108 resulting from the designation of the SGSN as the sole point of interception for SMS communication-identifying information and communication content. FBI-CIS believes the failure to consider alternative points of interception such as the SMS-SC, SMS-GMSC or SMS-IW MSC will result in the loss of critical lawfully authorized surveillance information since this capability is already supported by J-STD-025 for circuit-switch SMS.”

## 5 New Business

The following contributions were addressed:

**048** – The contribution deals with the T1P1.SAH developed and agreed to CR on security for 3GPP TS 33.106 (see T1P1.SAH meeting report **T1P1/2002-040 R1** and T1P1.SAH developed contributions **T1P1/2002-041 R1**) which was not agreed to by SA3-LI. The original CR along with drafted text from SA3-LI (see SA3-LI TDOC 084 R1) were reviewed.

Consensus was reached to resubmit the CR against 33.106 and, if when presented there are objections to including the material into the general/global section of the specification, to propose including the material in a normative U.S. specific section of the specification. See attached CR.

**049** – The discussion dealt with the Normative/Informative status of Annex G. in 3GPP TS 33.108.

Consensus was not reached to change the material/annex to Normative. There were three objections to making the material Normative (Cingular, Motorola, Nokia) and two supporting organizations (CIS, Telcordia). Other participants did not express an opinion.

The FBI-CIS provided the following comment for the report:

“FBI-CIS strongly objects to the decision of T1P1 not to move forward with a request to 3GPP SA3 LI to reconsider it's prior disposition of a consensus contribution (S3LI02-41) from the membership of T1P1 that proposed the standardization of additional delivery mechanism options (i.e., normative) for the delivery of intercept related information and communication content to LEAs. The contribution, as formulated by T1P1 (S3LI02-41), proposed the standardization of additional delivery mechanism options (as normative text) complementary to already existent options in the specification which are normative. FBI-CIS believes the failure to pursue the standardization of the additional delivery mechanism options would negatively impact the capability of LE to effectively perform lawfully authorized surveillance information.”

**045** – The discussion dealt with the March 7, 2002 TR-45 LAES liaison requesting material on GPRS/UMTS for J-STD-025 Revision B. A liaison was developed requesting references to GPRS/UMTS specifications be placed into J-STD-025 Revision B. See **T1P1/2002-068**.

## 6 Plans and Meetings

A contribution will be submitted to 3GPP SA3-LI as agreed to. No interim meeting is needed before the next T1P1 meeting. A T1P1.SAH meeting will be called as necessary for the July T1P1 meeting pending the results of the 3GPP SA3-LI meeting and additional LI work needed.

3GPP SA3-LI	June 04-06	Budapest, Hungary
3GPP SA3-LI	July 23-25	with T1P1 in Denver ? (TBD)
3GPP SA3-LI	Sept.-Oct.	Germany ? (TBD)
3GPP SA3-LI	November	with T1P1 in San Diego ? (TBD)
T1P1	July 23-25	Denver
T1P1	November 05-08	San Diego

## 7 Adjournment

The meeting was adjourned at 03:00 p.m. on May 02 , 2002.

**Attendance:**

<b>Name</b>	<b>Organization</b>
Peter Musgrove	AT&T Wireless
Al Thomas	Cingular
Pierre Truong	Ericsson
Don Codling	FBI-CIS
Michael Clifford	FBI-CIS
Jim Lovelace	FBI-CIS
Bob Beeson	Lucent
Brye Bonner	Motorola
Terri Brooks	Nokia
Ron Ryan	Nortel Networks
Wing-Cheong Yeung	Qualcomm
Sandra Lopez	Telcordia

**Contribution List:**

<b>Number</b>	<b>Title</b>	<b>Contributor</b>	<b>Disposition</b>
<b>008 R1</b>	Packet Activity	CIS, Telcordia	withdrawn
<b>036</b>	Packet Activity	CIS, Telcordia	withdrawn
<b>038</b>	Recommendations for addressing Issue #1 (SMS Events) in T1P1/2002-004	CIS, Telcordia	addressed
<b>040 R1</b>	T1P1.SAH March 26-28 Meeting Report	Chair	reviewed
<b>043 R1</b>	Meeting Announcement and Draft Agenda	Chair	noted
<b>045</b>	TR-45 LAES March 7, 2002 Liaison on GPRS/UMTS	TR-45 LAES	addressed
<b>046</b>	TR-45 LAES March 7, 2002 Liaison on CALEA Requirements	TR-45 LAES	FYI
<b>047</b>	FCC 02-108 Order on Remand (vacated punch list)	Chair	FYI
<b>048</b>	Security CR to TS 33.106	Chair	addressed
<b>049</b>	Annex G. of TS 33.108	Chair	addressed
<b>none</b>	ANS T1P1 5-Year Affirmation	Chair	FYI
<b>T1S1-072 R1</b>	T1S1 LAES Liaison on T1S1 LI Activity	T1S1 LAES	FYI
<b>SA3-LI 084R1</b>	Drafted text on security aspects (see 048)	Chair	noted

**T1P1.SAH**  
**Approved Agenda**  
**May 01, 2002**  
**(Key West, Florida)**

- |   |  |  |
|---|--|--|
| 1. Call to Order                          |  |  |
| 2. Attendance                             |  |  |
| 3. Contribution Ordering and Distribution |  |  |
| 4. Agenda Approval .....                  | <b>043 R1</b>  | Key West Agenda  |
| 5. IPR Statement                          |  | Other than reaffirming their company's previously stated position, does anyone wish to make any statement regarding IPR on standards being worked in this committee?                       |
| 6. Announcements and FYI .....            | <b>none</b><br><b>047</b><br><b>049</b>                  | ANS T1P1 5 Year Affirmation<br>FCC 02-108 Punch List Order on Remand<br>TS 33.108 Version 1.1.0  |
| 7. Meeting Report(s) .....                | <b>040 R1</b>  | Irving Report (March 26-28,2002)   |
| 8. Correspondence and Liaisons .....      | <b>T1S1-072 R1</b><br><b>046</b>                         | FYI T1S1 Activity on LI<br>FYI TR-45 LAES Activity on LI <ul style="list-style-type: none"> <li>• Summary of CALEA Requirements</li> <li>• J-STD-025 Revision B (PN-4465-RV1.4)</li> </ul> |
| 9. Unfinished Business .....              | <del><b>008 R1</b></del><br><br><b>036</b><br><b>038</b> | <del>Packet Activity (withdrawn)</del><br><br><del>Packet Activity (withdrawn)</del><br>SMS  |
| 10. New Business                          |  |  |
| a. SA3-LI Specifications .....            | <b>048</b>   | Security CR to TS 33.106<br>(see SA3-LI 084 R1)  |
| b. Discussion on 3GPP SA3-LI Activity ..  | <b>049</b>   | Normative/Informative Annex G.   |
| c. Discussion on TR-45 LAES Activity ...  | <b>045</b>   | References to GPRS/UMTS  |
| 11. Plans and Actions                     |  |  |
| 12. Future Meetings                       |  |  |
| a. Hosting SA3-LI in July/November        |  |  |
| 13. Adjournment                           |  |  |

CR-Form-v4
<b>CHANGE REQUEST</b>
⚡ <b>33.106 CR CRNum</b> ⚡ rev <b>-</b> ⚡ Current version: <b>5.1.0</b> ⚡

For **HELP** on using this form, see bottom of this page or look at the pop-up text over the ⚡ symbols.

**Proposed change affects:** ⚡ (U)SIM  ME/UE  Radio Access Network  Core Network

<b>Title:</b>	⚡ Changes to 33.106 to clarify interception capabilities.		
<b>Source:</b>	⚡		
<b>Work item code:</b>	⚡	<b>Date:</b>	⚡ 4 June 2002
<b>Category:</b>	⚡ <b>F</b>	<b>Release:</b>	⚡ Rel-5
	Use <u>one</u> of the following categories:		Use <u>one</u> of the following releases:
	<b>F</b> (correction)	<b>R96</b> (GSM Phase 2)	
	<b>A</b> (corresponds to a correction in an earlier release)	<b>R97</b> (Release 1996)	
	<b>B</b> (addition of feature),	<b>R98</b> (Release 1998)	
	<b>C</b> (functional modification of feature)	<b>R99</b> (Release 1999)	
	<b>D</b> (editorial modification)	<b>REL-4</b> (Release 4)	
	Detailed explanations of the above categories can be found in 3GPP <a href="#">TR 21.900</a> .	<b>REL-5</b> (Release 5)	

<b>Reason for change:</b>	⚡ The reference to J-STD-025 is updated to a later revision. In addition, include enhancements and clarification regarding requirements for encryption of intercepted communications, unobtrusiveness of interception, and integrity of intercepted data.
<b>Summary of change:</b>	⚡ Clarify the handling of interception (e.g., unobtrusiveness) and update to a Section 2 references.
<b>Consequences if not approved:</b>	⚡ Misalignment with J-STD-025-A.

<b>Clauses affected:</b>	⚡ 2, 5.2.1.3, and 5.6	
<b>Other specs affected:</b>	<input type="checkbox"/> Other core specifications <input type="checkbox"/> Test specifications <input type="checkbox"/> O&M Specifications	⚡
<b>Other comments:</b>	⚡ This CR has been agreed to by T1P1.SAH	

**How to create CRs using this form:**

Comprehensive information and tips about how to create CRs can be found at: [http://www.3gpp.org/3G\\_Specs/CRs.htm](http://www.3gpp.org/3G_Specs/CRs.htm). Below is a brief summary:

- 1) Fill out the above form. The symbols above marked ⚡ contain pop-up help information about the field that they are closest to.
- 2) Obtain the latest version for the release of the specification to which the change is proposed. Use the MS Word "revision marks" feature (also known as "track changes") when making the changes. All 3GPP specifications can be downloaded from the 3GPP server under <ftp://ftp.3gpp.org/specs/> For the latest version, look for the directory name with the latest date e.g. 2001-03 contains the specifications resulting from the March 2001 TSG meetings.
- 3) With "track changes" disabled, paste the entire CR form (use CTRL-A to select it) into the specification just in front of the clause containing the first piece of changed text. Delete those parts of the specification which are not relevant to the change request.

**Discussion:**

TIP1.SAH reviewed the material on security submitted in April to SA3-LI along with the material developed at the SA3-LI meeting and feels the original material is appropriate and requests the following material to be included in TS 33.106.

**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.

- [1] European Union Council Resolution on the Lawful Interception of Telecommunications (17. January 1995)
- [2] ETR 331: "Definition of User Requirements for Lawful Interception of Telecommunications; Requirements of the Law Enforcement Agencies".
- [3] ES 201 158: "Lawful Interception; Requirements for network functions".
- [4] ES 201 671: "Handover Interface for the lawful interception of telecommunications traffic".
- [5] GSM 01.33: "Lawful Interception requirements for GSM".
- [6] GSM 02.33: "Lawful Interception - stage 1".
- [7] GSM 03.33: "Lawful Interception - stage 2".
- [8] J-STD-[025-A Interim Standard](#), "Lawfully Authorised Electronic Surveillance".

### 5.2.1.3 Security of processes

The intercept function shall only be accessible by authorised personnel.

To be effective, interception must take place without the knowledge of either party to the communication. Therefore, decryption must also take place without either party being aware that it is happening.

No indication shall be given to any person except authorised personnel that the intercept function has been activated on a target. Authentication, encryption, audits, log files and other mechanisms may be used to maintain security in the system. Audit procedures should be capable of keeping accurate logs of administration commands.

NWOs/APs/SvPs shall ensure that its equipment, facilities, or services that provide a customer or subscriber with the ability to originate, terminate, or direct communications are capable of facilitating authorized communications interceptions and access to intercept related information unobtrusively and with a minimum of interference with any subscriber's telecommunications service and in a manner that protects:

(A) the privacy and security of communications and intercept related information not authorized to be intercepted; and

(B) information regarding the LEA's interception of communications and access to intercept related information.

A NWOs/APs/SvPs shall not be responsible for decrypting, or ensuring the LEA's ability to decrypt, any communication encrypted by a subscriber or customer, unless the encryption was provided by the carrier and the carrier possesses the information necessary to decrypt the communication.

## 5.6 Minimum service requirements

Quality of service, capacity, integrity, and reliability are the subject of bilateral agreement between the relevant authorities and the 3GMS operator. The QoS towards the delivery function provided by the network must be at least that the network provides to the target.

**Liaison to TR45 LAES**

**To:** Ms. Terri L. Brooks  
Chair, TIA TR-45 LAES Ad Hoc

Date: May 3, 2002

**cc:** Mr. Robert J. Hall, Chair T1S1  
Mr. Ray Hapeman, Chair Committee T1  
Mr. Ron Ryan, Chair T1P1 SAH  
Mr. Dan Bart, TIA  
Ms. Cheryl Blum, Chair Committee TR-45  
Ms. Terri L. Brooks, Chair TR-45 LAES Ad Hoc  
Mr. Gary Pellegrino, Vice-Chair TR-45 LAES Ad Hoc  
Colonel Ed Hall, VP Technology Development, ATIS

**Subject:** Ref. TR45-LAES Liaison Dated March 07, 2002 on GPRS/UMTS References for J-STD-025 Revision B

Dear Terri,

Thank you for your liaison regarding GPRS/UMTS for Revision B of J-STD-025. T1P1 has reviewed the liaison and requests the following to be placed into Revision B of J-STD-025 (PN-4465-RV1):

**4.9.3 GPRS/UMTS**

*See 3<sup>rd</sup> Generation Partnership Project (3GPP) in the references section for information on lawful interception for GPRS/UMTS.*

Regards,

Asok

**Meeting Report**  
**Working Group T1P1.2 GSM/3G Radio**  
**Key West, Florida**  
**April 30-May 3,2002**

---

---

**Title: Meeting Report**

**Source: T1P1.2 Chair & Vice Chair**  
Don Zelmer, Cingular & Margaret Livingston, Nokia

---

---

The T1P1.2 and T1P1.3 met jointly, Tuesday, April 30, 2002. This meeting was convened by T1P1.2 Chairman, Don Zelmer, Vice Chairwoman, Margaret Livingston, and T1P1.3 Chairman, Gary Jones and Vice Chairwoman, Sonia Garapaty. The agenda for the joint meeting can be found in, T1P1.2/2002-53 and was approved by the group. Details of this joint meeting are presented within this report.

T1P1.2 and TR46.2 met jointly for a half day, Wednesday, May 1, 2002. This meeting was convened by Chairman, Don Zelmer, Vice Chairwoman, Margaret Livingston, and TR46.2 Convenor, Andrew Clegg. The agenda for the joint meeting can be found in, T1P1.2/2002-54 and was approved by the group. Details of this joint meeting are presented within this report. Attendance lists for these meetings is located in the annex section of this report.

T1P1.2 meeting continued Wednesday afternoon, convened by Chairman, Don Zelmer, Vice Chairwoman, Margaret Livingston. The agenda for the joint meeting can be found in, T1P1.2/2002-52r1, it was updated and approved by the group. A list of attendees can be found in Annex A

## **IPR Question**

Other than reaffirming their company's previously stated positions, does anyone wish to make any statement regarding IPR on standards being worked in this committee?  
No comments received the group.

## **Liaisons**

No incoming liaisons received.

T1P1.2/2002-081r1: T1P1.2 agreed to send a liaison to the Chairman of Committee T1, Raymond Hapeman, informing the committee of T1P1's completed status of updating, M.1457 "Detailed specifications of the radio interfaces of IMT-2000".

T1P1.2 would like to request approval from T1P1 for this liaison: [T1P1/2002-053](#).

## **Previous Meeting Reports (32, 44r1, 51)**

T1P1.2/2002-32r1 : T1P1.2 Meeting Report from Kiawah Island, NC, was reviewed and approved.

T1P1.2/2002-44r1 : T1P1.2 Interim Meeting Report from March 26, 2002, was reviewed, a modification was made to the attendance list, and the report was approved.

T1P1.2/2002-51: Draft Interim T1P1.2 meeting report : April 23, 2002, was reviewed and approved.

**Meeting Report**  
**Working Group T1P1.2 GSM/3G Radio**  
**Key West, Florida**  
**April 30-May 3,2002**

---

**RSPC Update ( 49, 42r2, 43,r2, 48, 47, 46 )**

T1P1.2/2002-49: Specification Master list for RSPC (Excel spreadsheet)  
This document is a list of all the FDD/TDD documents for the RSPC update. This is organized by releases. It was provided for information and noted.

T1P1.2/2002-42r2: Update of Sections 5.1.2(FDD) for RSPC  
This document is the FDD portion with the tables filled in for Committee T1's as an SDO to fulfil the Updating Recommendation to ITU-R M.1457 to Revision 2.  
Approved.

T1P1.2/2002-43r2: Update of Sections 5.3.2(TDD) for RSPC  
This document is the TDD portion with the tables filled in for Committee T1's as an SDO to fulfil the Updating Recommendation to ITU-R M.1457 to Revision 2.  
Approved.

Approval will be sought by the T1P1 Voting members on Friday, May 3, 2002, during the T1P1 plenary, to approve a number of 3GPP Specifications as T1 Specifications (per 19.2 of the T1 Procedures Manual). These 3GPP specifications are available for review:

T1P1.2/2002-48: Release 5 package for RSPC,

T1P1.2/2002-47: Release 4 package for RSPC

T1P1.2/2002-46: Release 99 package for RSPC

and accessible individually at <ftp://ftp.t1.org/pub/t1p1/3gpp/042002>. Delegates were asked to examine these specifications prior to the May 3, 2002, T1P1 meeting. After review in T1P1.2 meetings (including interim meetings), there have been no objections or modifications needed to these specifications. These documents are approved by T1P1.2.

**Reports from Other Groups**

**ITU-R WP8F T1P1.3/2002-079**

T1P1.3/2002- 79: ITU-R WP8F Report

In the joint T1P1.2/T1P1.3 meeting, Gary Jones provided and summarized the report from the ITU-T Working Party 8F meeting. More details on ITU-R WP8F reports is in the joint .2/.3 section of this document.

The document was noted for information.

**3GPP TSG RAN T1P1.3/2002- 68**

T1P1.3/2002-68: 3GPP TSG RAN Report to PCG – Don Zelmer introduced this report.

Highlights from the meeting include:

- Review of functionality not used in Release '99 resulted in removal of no coding for FDD (from R'99 and Rel-4
- Completing UE positioning was agreed to be of high priority and hence proposals for work on new methods were rejected pending completion of the work at the Working group level.

**Meeting Report**  
**Working Group T1P1.2 GSM/3G Radio**  
**Key West, Florida**  
**April 30-May 3,2002**

---

- HSDPA has been subject of a lot of CRs from TSG-RAN WG1, WG2 and WG3 (and some WG4). It is considered that the Stage 2 and Stage 3 activities are completed except the work to be done in TSG-RAN WG4

This document was noted for information.

RAN 1 T1P1.2/2002- 55, 56, 75

T1P1.2/2002- 55: 3GPP RAN 1 Presentation Rpt to RAN #15 plenary.

T1P1.2/2002- 56: 3GPP Ran 1 #25 Interim Meeting Report R1-020688

T1P1.2/2002- 75: Spatial Channel Model AHG #1 Meeting Summary, April 10-11, 2001 – Meeting Report (R1-020681)

The 3GPP RAN 1 meeting reports were reviewed, discussed and provided for information. Noted.

RAN 2 T1P1.2/2002- 57, 58

T1P1.2/2002- 57: 3GPP Ran 2 Plenary (#15) Meeting Report Rp-020060

T1P1.2/2002- 58: 3GPP Ran 2 Interim # 28 Meeting Report R2-020799

The 3GPP RAN 2 meeting reports were reviewed, discussed and provided for information. Noted.

RAN 3 T1P1.2/2002- 59, 60

T1P1.2/2002- 59: 3GPP Ran 3 Plenary #15 Meeting Report

T1P1.2/2002- 60: 3GPP Ran 3 Interim # 27 Meeting Report

The 3GPP RAN 3 meeting reports were reviewed, discussed and provided for information. Noted.

RAN 4 T1P1.2/2002- 61, 62

T1P1.2/2002- 61: 3GPP Ran 4 Plenary #15 Meeting Report: Rp-020222

T1P1.2/2002- 62: 3GPP Ran 4 Interim #22 Meeting Report

The 3GPP RAN 4 meeting reports were reviewed, discussed and provided for information. Noted.

ITU-Ad Hoc T1P1.2/2002- 63, 74

T1P1.2/2002-74: Reminder about Updating Recommendation ITU-R M.1457 to Revision 3

This document proposes the schedule for the next revision of RSPC. It was provided for information. Noted by the group.

T1P1.2/2002- 63: 3GPP Ran #15 ITU-R Ad-Hoc Draft Liaison: Rp-020243

This document is the draft version of (T1P1.2/2002-74). Provided for information and noted.

**3GPP TSG GERAN 67, 64**

T1P1.3/2002 – 67: 3GPP GERAN #9: WG2 Report - Presentation: GP-021285

T1P1.2/2002 – 64: 3GPP GERAN #9: Current Work Plan : GP-021208

The above GERAN documents were Introduced by Margaret Livingston. Provided for information and noted.

**GERAN 1 69**

**Meeting Report**  
**Working Group T1P1.2 GSM/3G Radio**  
**Key West, Florida**  
**April 30-May 3,2002**

---

---

T1P1.2/2002- 69: 3GPP GERAN #9: WG1 Report : GP-021264  
GERAN WG 1 document was Introduced by Margaret Livingston. Provided for information and noted.

**GERAN 2 65, 66, 67, 68**

T1P1.2/2002- 65: 3GPP GERAN #9: WG2 Report of Interim meeting #8bis: GP-020960  
T1P1.2/2002- 66: 3GPP GERAN #9: WG2 Report of Interim meeting #8bis (Slides): GP-020771  
T1P1.2/2002- 67: 3GPP GERAN #9: WG2 Report Presentation): GP-021285  
T1P1.2/2002- 68: 3GPP GERAN #9: WG2 Report : GP-021281  
GERAN WG 2 documents were Introduced by Margaret Livingston. Provided for information and noted.

**GERAN 3 None**

**GERAN 4 70, 71**

T1P1.2/2002- 70: 3GPP GERAN #9: WG4 Meeting Report: GP-021214  
T1P1.2/2002- 71: WG4 Meeting Report (Presentation): GP-021287  
GERAN WG 4 documents were Introduced by Margaret Livingston. Provided for information and noted.

**GERAN 5 72, 73**

T1P1.2/2002- 72: 3GPP GERAN #9: WG5 Meeting Report: GP-021184  
T1P1.2/2002- 73: 3GPP GERAN #9: WG5 Meeting Report (Presentation): GP-021183  
GERAN WG 5 documents were Introduced by Margaret Livingston. Provided for information and noted.

**Next T1P1.2 Meeting**

<b>T1P1 Meeting Schedule</b>	<b>Location</b>
July 23 – 26, 2002	Westminster, Colorado
November 5 – 8, 2002	TBD

**Adjourn**

T1P1.2 adjourned at 9:30 AM, Thursday, May 2, 2002.

**Meeting Report**  
**Working Group T1P1.2 GSM/3G Radio**  
**Key West, Florida**  
**April 30-May 3,2002**

---

## **T1P1.2/T1P1.3 Joint Meeting Report**

### **1. Introductions and Attendance Registration**

The T1P1.2 and T1P1.3 met jointly, Tuesday, April 30, 2002. This meeting was convened by T1P1.2 Chairman, Don Zelmer, Vice Chairwoman, Margaret Livingston, and T1P1.3 Chairman, Gary Jones and Vice Chairwoman, Sonia Garapaty. The agenda for the joint meeting can be found in, T1P1.2/2002-53 and was approved by the group.

A list of attendees can be found in Annex B

### **2. IPR Question**

*Other than reaffirming their company's previously stated positions, does anyone wish to make any statement regarding IPR on standards being worked in this committee?*

No Comments from the Group.

### **3. ITU Related Matters**

#### **3.1. ITU-R WP 8F**

T1P1.3/2002-079: ITU-R WP8F Report - This report was given by Gary Jones.

Following issues were highlighted to the group:

The ITU-R WP 8F Workplan Chart (118). An annual update of the RSPC (M.1457) in ITU-R and, if necessary, revisions to the recommendations for IMT-2000 are needed to keep the ITU updated.

A new Public Protection and Disaster Relief (PPDR) group within WP 8F is working on the concept of using IMT-2000 technologies and systems to satisfy their needs for public protection and disaster relief. This new group has triggered a number of discussions with the U.S. The U.S. position is that the two purposes of this group are not the same and do not have the same needs. Public protection is a real-time constant need, where disaster relief is transient in that they occur in random spots for a limited amount of time.

T1P1.3/2002-94 3GPP response ITU-R on Update Schedule – Gary Jones introduced.

3GPP RAN intent to update Sections 5.1.2. & 5.3.2. of Recommendation ITU-R M.1457 in year 2002, and their schedule for updating the RSPC for revision 3. Provided for information and noted.

Additionally, the T1P1.3 chairman briefly presented reports and some documents from the WP 8F Spectrum (85), Vision (87, 88), Development (82), RTECH (83), and PPDR (84, 86), PDRN (88) groups.

#### **Update to M.1457 for RSPC**

T1P1.2/2002-42r2 (Updated section 5.1.2 of Recommendation ITU-R M.1457 (FDD))

T1P1.2/2002-43r2 Updated section 5.3.2 of Recommendation ITU-R M.1457 (TDD)

Introduced by Margaret Livingston. These documents will be submitted to WP8F as the updated tables for section 5.1.2 & 5.3.2 for RSPC.

T1P1.2/2002-49 – List of specifications and location for the update of RSPC in Excel Spreadsheet organized by Releases.

**Meeting Report**  
**Working Group T1P1.2 GSM/3G Radio**  
**Key West, Florida**  
**April 30-May 3,2002**

---

The group considered a discussion within the 3GPP TSG Leadership on the need to keep 3GPP Release 4. Members were encouraged to consider this issue within their companies, as it will probably be raised at the next 3GPP plenary.

T1P1 delegates are encouraged to consider this issue and be prepared to discuss at the next 3GPP plenary.

T1P1.3/2002-88- ITU-R Working Party 8F Services PDNR : Introduced by Gary Jones. This is the beginning of the document that will define services for the future. This corresponds to 3GPP SA1 responsibilities. Figure 4-1, depicts the systems beyond IMT-2000. this is a work in progress. If T1P1 would like to add input this, we certainly are able to – This document is supposed to be finished by end of 2002.

T1P1.3/2002-80, 81 – Announcements for next meetings for Eighth meeting of Working Party 8F on IMT-2000 and systems beyond IMT-2000, Date and place of the meeting  
The meeting will take place at the Crown Plaza Hotel, Ottawa from 29 May to 4 June 2002.  
May 28, 2002 a seminar will be scheduled on IMT-2000 and beyond.

### 3.2. ITU-T SSG

Jean Trakinat summarized the issues under discussion within the ITU-T SSG. It was noted the ITU-T SSG group is reviewing the numbering and looking at the questions. Should there be a lower class document, that does not have to be approved by member states, ie. Sector members would approve.

## 4. T1P1 Issues

- 4.1. **HSPDA** – High Speed Packet Data. Don Zelmer gave a report. Provide 10Mbits data. MIMO – Multiple inputs/Multiple outputs (21Mbits).
- 4.2. **Priority Access Services** – Gary Jones gave a verbal report. Two things have occurred since last t1p1 meeting.
  1. A system for immediate priority services is being implemented in Washington DC & New York.
  2. The GSM track, have begun the process of determining the systems to be implemented within 2002 until the end of 2003. (FOC – Final Operating Committee). Lots of discussions of what the requirements the government has verse what the industry is able to provide. By the end of 2003, Nationwide capability (multiple operators), and capable of end to end priority throughout all the network. A lot of work is still to be done, this process is just beginning.

Jim Garahan, Chair of 3GPP SA1 Priority Services Ad-Hoc – gave 3GPP status report. SA1, #15 – TR 22.950 v1.0.0 now exists as a result of the feasibility study. LS have been to other SA groups. It was reviewed at the last SA plenary meeting (March) and noted for information. (S1-020641)

The group continues to progress the work, and plan on bringing the documents to the next SA plenary in June. This is a feasibility study to investigate what we can do with the current architecture, and signaling trying to align with PAS requirements. The goal is to align with the existing specifications.

**Meeting Report**  
**Working Group T1P1.2 GSM/3G Radio**  
**Key West, Florida**  
**April 30-May 3,2002**

---

**4.3. TR45.2 AHES (E911)**

At the last T1P1 meeting, T1P1 sent a liaison to T1S1 on Inclusion of additional shapes describing calling party's location. In response, T1S1 sent a liaison to NENA and APCO (130) requesting them to consider the proposal from T1P1 to include the additional CGL shapes in T1.628.

T1S1 also sent a reply liaison to T1P1 (131) requesting T1P1 provide additional information regarding the use of the additional shapes and whether this would significantly improve the statistical basis of determining the wireless E9-1-1 caller's location. T1S1 suggested that T1P1 work directly with APCO and NENA and inform T1S1 of the outcome.

Currently GSM specifications support more shapes than T1.628, therefore GSM networks must translate the extra shapes into one of the shapes supported by T1.628. This translation causes a loss in accuracy of the location information.

If the new shapes are included in T1.628, the PSAPs will have to do additional work to upgrade their systems to support the new shapes.

A new Emergency Services Interoperability Forum (ESIF) has been created within ATIS. Their first meeting is May 6 – 7 (132).

The group agreed to send a Liaison to ESIF, cc: NENA, APCO and T1S1. VoiceStream committed to have a representative in the meeting to present the Liaison. The liaison will be reviewed in T1P1.3.

There was a suggestion that T1P1 could wait until T1.628 is up for T1 reaffirmation. At this time, T1P1 could request the shapes be added in an addendum or create a new project in T1S1 to have an addendum to T1.628.

Margaret Livingston, E911 Rapporteur, provided for information the latest revision of the J-STF-036 Rev. A (55).

**5. 3GPP**

**5.1. OP/PCG 95, 103, 105, 107, 108, 109-112, 113, 114**

Highlights from the discussion of the documents from the PCG #8 meeting on April 25<sup>th</sup> and OP #8 meeting on April 26<sup>th</sup>:

Stephen Hayes, 3GPP CN Chair and co-chair of the April 3 – 4 IP CN Harmonization Workshop reviewed the recommendations from the workshop (103). The workshop was hosted by OHG and MWIF in order to promote harmonization of the IP Core Network between 3GPP and 3GPP2. The workshop agreed that priority will be given to harmonization in the areas of: OSA/Parlay and IP Multimedia Subsystem (IMS). No future harmonization workshops are planned.

T1P1.3/2002-095 GSA Portal Report – Introduced by Gary Jones. Provided for information.

T1P1.3/2002 –103 OHG IP Harmonization Workshop Results – Introduced by Gary Jones, this is recommendations on the harmonization of 3GPP & 3GPP2 alignment of IMS and services aspects. Stephen Hayes gave a verbal report of the meeting. This was not a joint meeting of 3GPP & 3GPP2. This meeting primary goal was to develop recommendations for harmonization work with 3GPP2.

**Meeting Report**  
**Working Group T1P1.2 GSM/3G Radio**  
**Key West, Florida**  
**April 30-May 3,2002**

---

3GPP work is considerably further than 3GPP2, so the agreement was that 3GPP2 should base their work on 3GPP work already developed, i.e. same reference models, and terminology, there should be interoperability between 3GPP phone & 3GPP2 phone. Roaming is a must. This concept does not include network sharing nodes. More details in T1P1.3 will be discussed.

T1P1.3/2002 – 105 3GPP MCC Report to PCG – Introduced by Don Zelmer. There are a number of personnel changes anticipated, indications show increasing workloads, and the allocated budget provided by the Organizational Partners must be respected. It is nevertheless hoped that the TSGs will continue to receive the level of support that they expect.  
Provided for information.

T1P1.3/2002- 107 3GPP Approved New Working Procedures – Introduced by Don Zelmer. It was noted that the term “Ad Hoc” will no longer be used in 3GPP. Due the fact there are no rules defined for this group, and since this is not an official 3GPP meeting, the results must go to other 3GPP groups for approval.  
Provided for information, noted.

T1P1.3/2002 – 109 3GPP Finance Report to OPs - Noted  
T1P1.3/2002 –110 3GPP 2001 Funding Report to OPs - Noted  
T1P1.3/2002- 111 3GPP 2001 Surplus Report to OPs – Determines how the surplus of 2001 is distributed back to the OPs. - Noted  
T1P1.3/2002- 112 3GPP 2002 Funding Report to OPs  
Document from the 3GPP MCC on Year 2002 Budget and Partner Contributions. It was noted that T1's (21 Members in SA, CN RAN and T, and 11 Members in GERAN) contribution to 3GPP for 2002 is 1131.37 kEuros.  
Gary Jones summarized the finance reports listed above. All provided for information.

T1P1.3/2002 – 113 : Request for A more formal relationship between 3GPP and external bodies – Introduced by Gary Jones. A formal letter from IMTC (International Multimedia Telecommunications Consortium). This example letter states that a more formal relationship is needed if 3GPP wishes to address documents and information from other external groups. (IPR issues) 3GPP decided that the current established procedures address this concern, and asked the external organizations to clarify further the problem, and suggest how to improve 3GPP procedures.  
Noted for information.

T1P1.3/2002 – 114 Correspondence to 3GPP concerning the Open Mobile Architecture (OMA) initiative- Introduced by Gary Jones. This correspondence has been received concerning the creation of the Open Mobile Architecture (OMA) initiative. Due to the close relationship between the planned work of this initiative and 3GPP it is highly likely that a close working relationship will need to be established. The Organizational Partners may wish to discuss the nature of the relationship to be established. This is not a 3GPP initiative, but impacts 3GPP.  
Noted for information.

## 5.2. Summary of 3GPP Plenary : SA 93, CN 89, T 69, RAN 92, GERAN 90

T1P1.3/2002- 93: 3GPP TSG SA Report to PCG - The work of TSG-SA consists of three main parts: technical work within TSG-SA, technical co-ordination between the TSGs and project management. In the period TSG-SA have been working in all three areas. The technical work within TSG-SA is organized in 5 working groups dealing with the service aspects, architecture, security, codec aspects and telecom management. In addition to the plenary meetings and the working group meetings TSG-

**Meeting Report**  
**Working Group T1P1.2 GSM/3G Radio**  
**Key West, Florida**  
**April 30-May 3,2002**

---

SA has held one workshop on the subject of "3GPP Future Evolution". The purpose of organizing the workshop was to collect inspiration for the future evolution of the 3GPP based systems.

Highlights -

- At TSG-SA #15 it was agreed to plan for a "long term vision" creation kick-off meeting in conjunction with TSG-SA #17. A preparation meeting for this will be held during the TSG #16 meetings.
- In relation to IP Multimedia Subsystem TSG SA WG4 is working on Multimedia Codecs and Protocols for Conversational PS Services. The responsibility for MMS media formats and codecs has been transferred from TSG T WG2 to TSG SA WG4.
- TSG-SA concludes that all release 99 and release 4 items have been completed and the release can be considered stable. However, TSG-SA foresees there still for a while will be a need for corrective changes to Release 99 especially in the area of the radio access network. These corrective changes might reach a second peak when larger scale of network deployment based on the specification starts.

Noted for information.

T1P1.3/2002- 89: 3GPP TSG CN Report to PCG – Stephen Hayes introduced this report. Noted for information.

T1P1.3/2002- 69: 3GPP TSG T Report – Ed Ehrlich introduced this report.

- GSM Association has come forward to help fund Funding GERAN to UTRAN Inter-RAT TTCN Test Case implementation. Noted for information.

T1P1.3/2002- 92: 3GPP TSG RAN Report to PCG – Don Zelmer introduced this report.

Highlights:

- Review of functionality not used in Release '99 resulted in removal of no coding for FDD (from R'99 and Rel-4
- Completing UE positioning was agreed to be of high priority and hence proposals for work on new methods were rejected pending completion of the work at the Working group level.
- HSDPA has been subject of a lot of CRs from TSG-RAN WG1, WG2 and WG3 (and some WG4). It is considered that the Stage 2 and Stage 3 activities are completed except the work to be done in TSG-RAN WG4.

T1P1.3/2002- 90: 3GPP TSG GERAN Report to PCG – Introduced by Margaret Livingston, noted for information.

Reports introduced by Gary Jones.

5.3. IETF Report - See T1P1.3 Report

5.4. Release 5 99

T1P1.3/2002 –99 - 3GPP Release5 Content – Introduced by Gary Jones. The document provided a Gant Chart of Release 5 Work items. Noted for information.

5.5. Release 6 100

T1P1.3/2002- 100 3GPP Release 6 Content - Introduced by Gary Jones. This document includes the complete list of Release 6 features. Release 6 will most likely be completed by December 2003.

Noted for information.

**Meeting Report**  
**Working Group T1P1.2 GSM/3G Radio**  
**Key West, Florida**  
**April 30-May 3,2002**

---

5.6. Status of 3GPP Work Items 97, 98

T1P1.3/2002-097: 3GPP Workplan Review – Introduced by Gary Jones. The detailed work plan report. Noted for Information.

T1P1.3/2002-098: 3GPP PCG Approved Workplan – Introduced by Gary Jones. This is the list of the workplan approved by the PCG. Table 1 lists the Release 5 & 6 features, this information can also be found from the 3GPP website.

Noted for information.

5.7. 3GPP Meeting Calendar 63, 64

T1P1.3/2002 – 063: 3GPP 2002 Calendar – Introduced by Gary Jones. Provided for information. Most current calendar as of Friday, April 26, 2002. Noted for information.

T1P1.3/2002 – 064: 3GPP Plenary Calendar- Introduced by Gary Jones. Provided for information. Most current calendar as of Friday, April 26, 2002. Noted for information.

**6. Any Other Business 106, 108**

T1P1.3/2002-106 - European Friends of 3GPP Letter - Introduced by Mark Younge.

In recognition of the above, a number of ETSI Members that are active within 3GPP have formed themselves into “The European Friends of 3GPP”, otherwise known as “EF3”. Their intention is to collectively host 3GPP meetings within Europe and to do so in a manner that is cost effective, efficient, and which meets with the expectations of the 3GPP community. The ETSI Secretariat has been asked to provide logistic support to “EF3” on a cost recovery basis.

- If they get this going, there will be an aggressive approach from the Europeans to host more meetings.
- Currently, there has been some difficulty getting support for other companies.

Noted.

T1P1.3/2002- 108 3GPP Proposed Meeting Guidelines – Introduced by Gary Jones. This document was presented to the PCG as a proposed guideline for future meetings. The goal is to utilize this document and present this to meeting planners and hosts. Noted for information.

**7. 802.XX Items 129**

T1P1.3/2002-129- Wireless News Report on 2.4 GHz Usage Challenge- Gary Jones presented a Wireless News article titled “Wireless Providers In 'Sirius' Trouble” (129). The article discussed the petition by a satellite radio company, Sirius, that severely hinders providers using the unlicensed 2.4GHz wireless frequency. Sirius, according to the petition, is specifically worried about emissions caused by interference between 802.11-based products, like a wireless phone or personal digital assistant (PDA), operating on the 2.4GHz frequency and satellite radio.

At the last IEEE 802.16 meeting it was agreed to create an IEEE 802.16 Study Group on Mobile Broadband Wireless Access (MBWA) group.

T1P1.4/2002-32r1 – Brian Kiernan, presented a T1P1.4 contribution from Mel Woinsky, Tantivy, summarizing the mission and scope of T1P1 and Mobile Broadband Wireless Access (MBWA) (IEEE 802.16) (T1P1.4/2002 – 32r1). The IEEE 802.6 change in mission and formation of the MBWA expands their work into mobile systems overlapping work in

**Meeting Report**  
**Working Group T1P1.2 GSM/3G Radio**  
**Key West, Florida**  
**April 30-May 3,2002**

---

other organizations (T1, TIA, 3GPP, 3GPP2). *T1P1.2 and T1P1.3 were asked to review the contribution further in their respective meetings and provide comments to T1P1.4.*

T1P1.4 intends to use text from this contribution and the comments received from T1P1.2 and T1P1.3 in a liaison to IEEE 802.16 (cc: IEEE 802).

**8. Any other Business**

T1P1.2/2002-133 – FCC Announcement on E911 Callback.

Provided for information. See T1P1.3 report for more details.

Noted.

**9. Next T1P1.2/T1P1.3 Joint Meeting**

T1P1.2 & T1P1.3 Joint Meeting Schedule
July 23, 2002
November 5, 2002

**10. Adjourn**

The joint meeting adjourned on Tuesday, April 30,2002 at 4:30 PM.

**Meeting Report**  
**Working Group T1P1.2 GSM/3G Radio**  
**Key West, Florida**  
**April 30-May 3,2002**

---

---

## T1P1.2/TR46.2 Joint Meeting Report

### Welcome & Introductions

T1P1.2 and TR46.2 met jointly for a half day, Wednesday, May 1, 2002. This meeting was convened by Chairman, Don Zelmer, Vice Chairwoman, Margaret Livingston, and TR46.2 Convener, Andrew Clegg. The agenda for the joint meeting can be found in, T1P1.2/2002-54 and was approved by the group. A list of attendees can be found in Annex C.

### IPR Question (T1P1.2)

*OTHER THAN REAFFIRMING THEIR COMPANY'S PREVIOUSLY STATED POSITIONS, DOES ANYONE WISH TO MAKE ANY STATEMENT REGARDING IPR ON STANDARDS BEING WORKED IN THIS COMMITTEE?*

### IPR question (TR46.2)

*IS THERE ANY KNOWLEDGE OF PATENTS, THE USE OF WHICH MAY BE ESSENTIAL TO A STANDARD BEING CONSIDERED IN THIS FORUM?*

No comments from the group with regards to the IPR questions.

### Current Issues:

#### Ultra-Wideband issues

UWB ruling by FCC  
Interference issues remain.

#### 3G spectrum allocations

Andrew Clegg gave a verbal report. 1.7GHz seems to be the favorite, although little has happened in FCC since February. Currently, no new spectrum available.

#### Proposed 700/800 MHZ reallocations 76, 77

T1P1.2/2002-76: Interference & Spectrum Update - Presentation by Andrew Clegg  
This presentation highlights topics such as 700/800 MHz re-allocations, 2.1 GHz MSS Issues, Interference Issues and TR46.2 Scope and Charter.  
Provided for information and discussion.  
Noted.  
T1P1.2/2002-77: 800 MHz reband NPRM (Notice of Proposed Rule Making)  
Provided for information and discussion.  
Noted.

#### 2.1 Ghz MSS Issues 76, 78, 79

T1P1.2/2002-78: FCC MSS Technical Public Notice  
Provided for information  
Noted.  
T1P1.2/2002-79: MSS Comments filed.  
Provided for information - Noted.

#### Interference Issues in 2G & 3G Radio systems 76, 80, .3/129, .4/32r1

T1P1.2/2002-80: Draft PN-4868 3<sup>rd</sup> Generation Systems and Licensed Band Network  
Provided for information.  
Noted.

**Meeting Report**  
**Working Group T1P1.2 GSM/3G Radio**  
**Key West, Florida**  
**April 30-May 3,2002**

---

T1P1.3/2002-129- Wireless News Report on 2.4 GHz Usage Challenge

A legal representative of the Wireless Communications Association (WCA) says it's likely the Federal Communications Commission (FCC) will sign off on a petition by a satellite radio company that severely hinders providers using the unlicensed 2.4GHz wireless frequency. Sirius Satellite Radio Inc. is asking for reduced emissions.  
Provided for information & noted.

T1P1.4/2002-32r1 Background Information on IEEE Liaison Issues

This document summarizes items of interest related to the mission and scope of T1P1 and MBWA (802.16).

It lists the concerns from T1P1 with regards to potential overlap with standards issues in 802.16 study group for Mobile Broadband Wireless Access and T1P1 working groups as well as other groups such as 3GPP, 3GPP2, etc...

Provided for information and discussion.

Noted.

Update of ITU-R WG8f .3/79

T1P1.3/2002-079: ITU-R WP8F Report

Report of the 7th Meeting of ITU-R WP 8F, February 27<sup>th</sup> – March 5<sup>th</sup> , Queenstown  
WP 8F does have a full complement of issues to consider, such as factoring in the results of WRC-2000 as they relate to spectrum matters, considering the update and harmonization of the approved IMT-2000 radio interface standards (Recommendation ITU-R M.1457, a.k.a. IMT.RSPC), interaction with the other ITU sectors, global handset circulation matters and creating the future vision of and promoting progress to systems beyond IMT-2000.

Provided for information and discussion.

Noted.

**Future Meetings**

<b>T1P1.2 &amp; TR46.2 Joint Meeting Schedule</b>
July 24, 2002
November 6, 2002

**Adjourn**

Adjournment of Joint TR46.2 & T1P1.2 Meeting was at 12:30 pm.

**Meeting Report**  
**Working Group T1P1.2 GSM/3G Radio**  
**Key West, Florida**  
**April 30-May 3,2002**

---

---

**Annex A: T1P1.2 Attendance List**

<b>Name</b>	<b>Company</b>	<b>Email</b>
Andrew Clegg	Cingular	<a href="mailto:Andrew.clegg@cingular.com">Andrew.clegg@cingular.com</a>
Chris Fitzgerald	DISA	<a href="mailto:fitzgerc@ftm.disa.mil">fitzgerc@ftm.disa.mil</a>
Domadar Anandampillai	NEC America	<a href="mailto:danandampillai@necam.com">danandampillai@necam.com</a>
Donald E. Zelmer	Cingular	<a href="mailto:Don.zelmer@cingular.com">Don.zelmer@cingular.com</a>
Margaret Livingston	Nokia	<a href="mailto:margaret.livingston@nokia.com">margaret.livingston@nokia.com</a>
Mark Younge	VoiceStream	<a href="mailto:Mark.younge@voicestream.com">Mark.younge@voicestream.com</a>
Quent Cassen	Conexant	<a href="mailto:Cassen@ieee.org">Cassen@ieee.org</a>
Tim Riley	US Dept of Commerce NTIA/ITS	<a href="mailto:Triley@its.bldrdoc.gov">Triley@its.bldrdoc.gov</a>
Sadao Takenaka	FNC	<a href="mailto:Sadao.takenaka@fnc.fujitsu.com">Sadao.takenaka@fnc.fujitsu.com</a>
Gil LaVeau	InterDigital	<a href="mailto:laveange@intrepid.net">laveange@intrepid.net</a>
Brian Kiernan	Interdigital	<a href="mailto:Brian.kiernan@interdigital.com">Brian.kiernan@interdigital.com</a>
Jim Garrahan	Telcordia Technologies	<a href="mailto:j.garrahan@telcordia.com">j.garrahan@telcordia.com</a>

**Meeting Report**  
**Working Group T1P1.2 GSM/3G Radio**  
**Key West, Florida**  
**April 30-May 3,2002**

---

---

**Annex B T1P1.2/T1P1.3 Joint Meeting Attendance List**

<b>NAME</b>	<b>COMPANY</b>	<b>E-MAIL</b>
Bob Beeson	Lucent	<a href="mailto:Rbeeson@lucent.com">Rbeeson@lucent.com</a>
Brain Kiernan	Interdigital	<a href="mailto:Brian.kiernan@interdigital.com">Brian.kiernan@interdigital.com</a>
Brian Yarger	Tellabs	<a href="mailto:Brian.yarger@tellabs.com">Brian.yarger@tellabs.com</a>
Brye Bonner	Motorola	<a href="mailto:Brye.bonner@motorola.com">Brye.bonner@motorola.com</a>
Chris Fitzgerald	DISA	<a href="mailto:fitzgerc@ftm.disa.mil">fitzgerc@ftm.disa.mil</a>
Clif Barber	Tantivy Communication	<a href="mailto:cbarber@tantivy.com">cbarber@tantivy.com</a>
Damodar Anandampillai	Nec America	<a href="mailto:danandampillai@necam.com">danandampillai@necam.com</a>
Donald E. Zelmer	Cingular	<a href="mailto:Don.zelmer@cingular.com">Don.zelmer@cingular.com</a>
Ed Ehrlich	Nokia	<a href="mailto:Ed.ehrlich@nokia.com">Ed.ehrlich@nokia.com</a>
Gary Jones	VoiceStream	<a href="mailto:Gary.jones@voicestream.com">Gary.jones@voicestream.com</a>
Gil LaVeau	InterDigital	<a href="mailto:Laveange@intrepid.net">Laveange@intrepid.net</a>
Jean C. Trakinat	NCS	<a href="mailto:Trakinaj@ncs.gov">Trakinaj@ncs.gov</a>
Jim Garrahan	Telcordia Technologies	<a href="mailto:j.garrahan@telcordia.com">j.garrahan@telcordia.com</a>
Jim Proctor	Tantivy Communication	<a href="mailto:jproctor@tantivy.com">jproctor@tantivy.com</a>
Ken Davey	Navini Networks	<a href="mailto:Kdavey@navini.com">Kdavey@navini.com</a>
Mac McKenzie	Spirent Communications	<a href="mailto:Mac.mckenzie@spirentcom.com">Mac.mckenzie@spirentcom.com</a>
Margaret Livingston	Nokia	<a href="mailto:margaret.livingston@nokia.com">margaret.livingston@nokia.com</a>
Mark Younge	VoiceStream	<a href="mailto:Mark.younge@voicestream.com">Mark.younge@voicestream.com</a>
Mike Karimian	Panasonic	<a href="mailto:Mkarimian@panasonicatlanta.com">Mkarimian@panasonicatlanta.com</a>
Peter Musgrove	AWS	<a href="mailto:Peter.musgrove@attws.com">Peter.musgrove@attws.com</a>
Pierre Troung	Ericsson	<a href="mailto:Pierre.troung@ericsson.com">Pierre.troung@ericsson.com</a>
Pierre Truong	Ericsson	<a href="mailto:Pierre.troung@ericsson.com">Pierre.troung@ericsson.com</a>
Quent Cassen	Conexant	<a href="mailto:Cassen@ieee.org">Cassen@ieee.org</a>
Rob Fries	Atmel Corp.	<a href="mailto:rfries@atmel.com">rfries@atmel.com</a>
Sadao Takenaka	Fujitsu Network Comm	<a href="mailto:Sadao.takenaka@fnc.fujitsu.com">Sadao.takenaka@fnc.fujitsu.com</a>
Sonia Garapaty	Nortel	<a href="mailto:Sonia.garapaty@nortelnetworks.com">Sonia.garapaty@nortelnetworks.com</a>
Stephen Hayes	Ericsson	<a href="mailto:Stephen.hayes@ericsson.com">Stephen.hayes@ericsson.com</a>
Stev Mills	Hewlett-Packard	<a href="mailto:Steve_mills@hp.com">Steve_mills@hp.com</a>
Steve Mills	Hewlett-Packard	<a href="mailto:Steve_mills@hp.com">Steve_mills@hp.com</a>
Wing-Cheong Yeung	Qualcomm	<a href="mailto:wyeung@qualcomm.com">wyeung@qualcomm.com</a>

**Meeting Report**  
**Working Group T1P1.2 GSM/3G Radio**  
**Key West, Florida**  
**April 30-May 3,2002**

---

---

**Annex C: TR46.2/T1P1.2 Joint Meeting Attendance**

<b>Name</b>	<b>Company</b>	<b>Email</b>
Andrew Clegg	Cingular	<a href="mailto:Andrew.clegg@cingular.com">Andrew.clegg@cingular.com</a>
Chris Fitzgerald	DISA	<a href="mailto:fitzgerc@fm.disa.mil">fitzgerc@fm.disa.mil</a>
Domadar Anandampillai	NEC America	<a href="mailto:danandampillai@necam.com">danandampillai@necam.com</a>
Donald E. Zelmer	Cingular	<a href="mailto:Don.zelmer@cingular.com">Don.zelmer@cingular.com</a>
Margaret Livingston	Nokia	<a href="mailto:margaret.livingston@nokia.com">margaret.livingston@nokia.com</a>
Mark Younge	VoiceStream	<a href="mailto:Mark.younge@voicestream.com">Mark.younge@voicestream.com</a>
Quent Cassen	Conexant	<a href="mailto:Cassen@ieee.org">Cassen@ieee.org</a>
Tim Riley	US Dept of Commerce NTIA/ITS	<a href="mailto:Triley@its.bldrdoc.gov">Triley@its.bldrdoc.gov</a>
Sadao Takenaka	FNC	<a href="mailto:Sadao.takenaka@fnc.fujitsu.com">Sadao.takenaka@fnc.fujitsu.com</a>
Gil LaVean	InterDigital	<a href="mailto:laveange@intrepid.net">laveange@intrepid.net</a>
Brian Kiernan	Interdigital	<a href="mailto:Brian.kiernan@interdigital.com">Brian.kiernan@interdigital.com</a>

**COMMITTEE T1 – TELECOMMUNICATIONS**

**T1P1**

**Key West, FL: 29 April –3 May 2002**

**DOCUMENT TYPE:** Contribution

**TITLE:** T1P1.4 Meeting Summary – Key West, FL

**SOURCE:** Clif Barber, Acting T1P1.4 Secretary

Tantivy Communications

1450 S. Babcock Street

Melbourne, FL 32901

[www.tantivy.com](http://www.tantivy.com)

(404) 608-1977 Fax (321) 956-9946

[cbarber@tantivy.com](mailto:cbarber@tantivy.com)

**PROJECT:** T1P1-01

**ABSTRACT:** This document summarizes the activities of T1P1.4 for the Key West, FL meeting during the period of 30 April –3 May 2002.

**RECOMMENDATION:** FYI

**Notice:**

---

This contribution is presented as the basis for discussion within Committee T1. Neither Tantivy Communications nor Committee T1 makes any representation or warranty, express or implied, with respect to the sufficiency, accuracy or utility of the information or opinion contained or reflected in the material utilized. Tantivy Communications reserves the right to amend, add to, or withdraw any and all statements contained herein.

**T1P1 WG4  
Meeting Summary  
30 April – 1 May 2002 – Key West, FL**

1. Introduction and Attendance Registration

The meeting was called to order on 30 April 2002 at 11:15 PM local time by T1P1 WG4 Acting Chair, Clif Barber (Tantivy Communications). The meeting participants introduced themselves and signed in on the attendance sheet provided. The sign-in has been transposed as Attachment A.

The Acting Chair welcomed everyone to Key West, FL and advised that he had been designated Acting Chair by the T1P1 Chair for this meeting in the absence of T1P1.4 Chair, Mel Woinsky (Tantivy Communications).

The Acting Chair advised that elections for the new T1P1.4 Chair would be held at the closing T1P1 Plenary. The only current candidate was Mel Woinsky (Tantivy Communications) as T1P1.4 Chair and there were no candidates for the position of T1P1.4 Vice Chair.

2. Approval of the Agenda

The meeting agenda (2P140203) was presented by the Acting Chair. **DECISION: This agenda was approved without objection as submitted.**

3. Approval of Previous Meeting Report

The meeting report for the January 2002 T1P1.4 meetings that were held in Kiawah Island, SC (2P110200) was presented by the Acting Chair. **DECISION: This contribution was adopted without objection as the official summary of the January 2002 meeting as modified by the discussion (2P110201).**

The meeting report for the 8 March 2002 T1P1.4 interim meeting that was held by conference call (2P140140) was presented by the Acting Chair. This meeting summary included the response to comments from Tellabs related to ballot of the WWINA Stage 1 Technical Requirements Document (LB 1048). **DECISION: This contribution was adopted without objection as submitted as the official summary of the 8 March 2002 interim meeting.**

The WWINA Stage 1 Air Interface Requirements Technical Requirements Document that was approved for publications at the 8 March 2002 interim Plenary including modifications based on Tellabs Ballot comments (2P140150) was noted as FYI. Further action on this contribution was deferred to agenda item 8.

Proposed correspondence to Tellabs providing response to their LB 1048 ballot comments (2P140210) was noted as FYI. Further action on this contribution was deferred to agenda item 8.

## 4. Review and Attribution of Contributions

The Acting Chair noted that the following contributions had been loaded onto the T1 website and distributed on the T1P1.4 network server except that 2P1400350 was submitted during the course of the meeting. They were assigned to agenda items as noted.

CONTRIBUTION	TITLE	CONTRIBUTOR	AGENDA
<b>CONTRIBUTIONS TO PAST MEETINGS</b>			
2P100200	T1P1.4 Meeting Summary – 22-25 January 2002 in Kiawah Island, SC	SECRETARY	3
2P100220	WWINA Workplan Recommendations	SECRETARY	8
2P140140	T1P1.4 Meeting Summary – 8 March 2002 Interim Plenary	SECRETARY	3
2P140150	WWINA Stage 1 Air Interface Requirements – Publication version	SECRETARY	3,9
2P140090	Proposal for WWINA Session Services ID Document	TANTIVY	8
<b>NEW CONTRIBUTIONS</b>			
2P140160	Description and Technical Merit of Multi-Carrier Synchronous Beamforming (MCSB)	NAVINI	5
2P140170	Status and proof of Multi-Carrier Synchronous Beamforming (MCSB)	NAVINI	5
2P140180	Value-added Benefits of Multi-Carrier Synchronous Beamforming (MCSB) and Applicability to T1P1	NAVINI	5
2P140190	Interest and Support of MCSB Standardization in T1P1	NAVINI	5
2P140203	T1P1.4 Meeting Agenda	CHAIR	2
2P140210	Proposed correspondence to Tellabs in response to ballot comments on WWINA Stage 1 Requirements	SECRETARY	3,9
2P140220	I-CDMA Architectural Overview – Air Interface System Revision 1	TANTIVY	7
2P140230	I-CDMA Architectural Overview – Physical Layer Revision 1	TANTIVY	7
2P140240	I-CDMA Architectural Overview – Link Layer Revision 1	TANTIVY	7
2P140250	I-CDMA Architectural Overview – Network Layer Revision 1	TANTIVY	7

CONTRIBUTION	TITLE	CONTRIBUTOR	AGENDA
2P140260	History of Changes to the I-CDMA Architectural Overview from Revision 0 to Revision 1	TANTIVY	7
2P140270	I-CDMA Air Interface Standard - Introduction Stage 3 Revision 0	TANTIVY	7
2P140280	I-CDMA Air Interface Standard - Physical Layer Stage 3 Revision 0	TANTIVY	7
2P140290	I-CDMA Air Interface Standard - Link Layer Stage 3 Revision 0	TANTIVY	7
2P140300	I-CDMA Air Interface Standard - Network Layer Stage 3 Revision 0	TANTIVY	7
2P140310	Tantivy Input on T1P1.4 Workplan Discussions	TANTIVY	8
2P140320	Background Information on IEEE Liaison Issues	CHAIR	6
2P140330	NOT SUBMITTED		
2P140340	Proposed Update to T1P1.4 Workplan	SECRETARY	8
2P140350	Overview of MCSB Contributions	NAVINI	5

5. Consideration of Multi-Carrier Synchronous Beamforming (MCSB) as a WWINA Technology

Using the January 2002 meeting summary (2P110200) as a reference, the Chair reminded the WG of the following requirements necessary for a technology to be approved as a WWINA technology for standardization purposes:

- Compliance with all WWINA Stage 1 Air Interface Requirements
- Technical merit of the proposed technology.
- Advanced development status of the technology and the confirmation that the technology is indeed “proven”.
- Value added benefit to the T1P1 membership.
- Assurances that standardization of this technology would not be better suited for other SDOs.
- Service provider interest from the T1P1 membership.
- Resource commitment from the T1P1 membership.

To facilitate WG considerations of its technology, Navini Networks presented the following contributions:

- Overview of MCSB Contributions (2P140350)
- Description and Technical Merit of Multi-Carrier Synchronous Beamforming (MCSB) (2P140160)
- Status and proof of Multi-Carrier Synchronous Beamforming (MCSB) (2P140170)
- Value-added Benefits of Multi-Carrier Synchronous Beamforming (MCSB) and Applicability to T1P1 (2P140180)
- Interest and Support of MCSB Standardization in T1P1 (2P140190)

Based on the discussion, the WG deferred action on the MCSB technology pending the following actions by Navini Networks:

- Navini must quality MCSB capabilities with respect to the following WWINA Stage 1 sections:
  - 6.1.6 Session Services
  - 6.2.1 RF Frequency Plan
  - 6.2.2 Deployment Model
  - 6.3.1 Grade of Service (GoS) for Simultaneous Session Users
  - 6.3.2 BSR Capacity
- Navini must verify the performance of MCSB with respect to WWINA Stage 1 section 6.3.5.2 - Pedestrian speed mobility operation of the AT device.
- Navini must provide a system layout for validation of the MCSB performance with respect to the following WWINA Stage 1 sections:
  - 6.3.4.2 - The WWINA AI shall support 1.0 Mbps average per sector data rates on the Forward/Down Link, as a minimum.
  - 6.3.4.6 - The WWINA AI shall support 500 kbps average per sector data rates on the Reverse/Up Link, as a minimum.
- Navini must provide independent verification of MCSB test data, preferably from a service provider, to confirm that it is indeed “proven”.

## 6. IEEE Liaison

Brian Kiernan (InterDigital Communications) advised that IEEE 802.16 had formed a Study Group on Mobile Broadband Wireless Access Networks (MBWA). The scope of this group was defined as "Mobile Broadband Wireless Access Network Operating in Licensed Frequency Bands and Supporting Mobility at Vehicular Speeds". The formation of the MBWA potentially expands the IEEE 802 work into mobile systems overlapping work in other organizations (T1, TIA, 3GPP, 3GPP2).

The WG then reviewed a contribution prepared by the Chair entitled “Background Information on IEEE Liaison Issues” (2P140320). The Acting Chair advised that this contribution was intended to be used as the basis for a liaison correspondence from T1P1 to IEEE 802. **DECISION: This contribution was approved without objection for forwarding to the joint WG2/WG3 meeting for consideration as modified by the discussion (2P140321).**

The meeting was adjourned on 30 April 2002 at 3:50 PM and reconvened on 1 May 2002 at 9:15 AM.

#### 7. I-CDMA Standardization

- Tantivy Communications presented updates to the I-CDMA Architectural Overview documents originally submitted at the January 2002 meeting. Those updates included the following:
    - I-CDMA Architectural Overview – Air Interface System Revision 1 (2P140220)
    - I-CDMA Architectural Overview – Physical Layer Revision 1 (2P140230)
    - I-CDMA Architectural Overview – Link Layer Revision 1 (2P140240)
    - I-CDMA Architectural Overview – Network Layer Revision 1 (2P140250)
- In addition, Tantivy also presented a detailed history of changes between Revision 0 and Revision 1 of the Architectural Overview documents (2P140260)
- These contributions were considered FYI for the WG.
- Tantivy Communications presented their initial submissions of I-CDMA Stage 3 text. They noted that the text was being submitted as four separate sections even though the final I-CDMA Stage 3 document is intended to be balloted as a single document. The Stage 3 submissions included the following:
    - I-CDMA Air Interface Standard - Introduction Stage 3 Revision 0 (2P140270)
    - I-CDMA Air Interface Standard - Physical Layer Stage 3 Revision 0 (2P140280)
    - I-CDMA Air Interface Standard - Link Layer Stage 3 Revision 0 (2P140290)
    - I-CDMA Air Interface Standard - Network Layer Stage 3 Revision 0 (2P140300)

Tantivy briefly overviewed the sections of each contribution. **ACTION: These contributions were remanded to all WG participants for review and comment at an interim T1P1.4 meeting to be scheduled later during this meeting.**

#### 8. Review of WG4 Workplan

- A contribution from Tantivy Communications regarding a proposal for WWINA Session Services ID Document (2P140090) was reviewed. This contribution had been held open from the January 2002 meeting. The following actions occurred based on this contribution:
  - **DECISION: The WG approved without objection the addition of a work item to the T1P1.4 workplan to develop a T1 Technical Report to standardize the assignment and definition of Session Service IDs to be approved for recommendation to T1P1 for ballot at the T1P1 closing Plenary of the July 2002 meeting.**
  - **ACTION: Tantivy Communications volunteered to bring a first draft of this document for review and consideration by the WG at the interim meeting.**
  - **ACTION: All WG participants were directed to consider possible candidates functions for the initial list of Session Service IDs to be included in the initial release of this document.**
- A contribution on Tantivy Input on T1P1.4 Workplan Discussions (2P140310) was presented. This contribution recommended the development of standards for WWINA Network Interfaces. Based on the discussion, the objectives of standardizing the network interfaces were noted as follows:
  - Enable multi-vendor support for network equipment
  - Support common interfaces in the case that multiple WWINA air interfaces are approved.
  - Inter-technology interfaces are also desirable.

The interfaces proposed by Tantivy included the following:

- Wn1: Network Control to Base Station Routers (BSRs)
- Wn2: ISP to BSRs
- Wn3: ISP to Network Control
- Wn4: Network Control to Network Control
- Wn5: Network Control to Operations Support Systems
- Wn6: Network Control to InterWorking Function (IWF) for inter-technology interfaces

The WG discussion on this contribution indicated the following:

- There was general consensus that standardization of WWINA Network Interfaces WN1 through WN4 for the purposes of multi-vendor support and commonality between WWINA air interfaces.
- There was general concern regarding standardization of Wn5 since that effort has failed in other SDOs (i.e., TR45.7).
- There was general consensus regarding the benefits of inter-technology interfaces but no consensus on whether or not this should be a T1P1.4 work item for the following reasons:
  - May exceed the scope of T1P1.4 (i.e., T1P1 WG2 and WG3 may need to be involved).
  - Some did not agree with Tantivy's position that this was an API development effort (i.e., looking inward toward WWINA) and thought it would involve massive efforts and joint workings with other SDOs.
  - Some noted that there were already groups in other arena that were undertaking this effort (i.e., 3GPP/3GPP2 IP Core Network Harmonization, ETSI BRAN, IETF, etc.).

This contribution was left open for further discussions at future meetings.

**ACTION: All T1P1.4 participants were requested to discuss these issues in their own organization in preparation for future contributions and discussions on this subject.**

- A contribution proposing an update to the T1P1.4 workplan (2P140340) was presented by the Secretary. In comparison to the approved T1P1.4 workplan (2P100220), the Secretary proposed, based on the historical level of participations at previous interim meetings, that there only be one (1) interim meeting between now and the July 2002 rather than the two (2) originally scheduled. **DECISION: The WG approved without objection the proposed schedule with the single interim meeting. That workplan was subsequently modified by the Secretary (2P140341) to remove the change marks and add the work item for the Session Services ID document.**

9. Recommendations to T1P1

**DECISION: The following actions were approved without objection for forwarding to the T1P1 closing Plenary:**

- **The approved WWINA Stage 1 Air Interface Requirements (2P140150) will be released for publication ([2P100580](#)) as a T1 Technical Requirements document.**
- **The approved correspondence to Tellabs (2P140210) in response to WWINA Stage 1 ballot comments (LB 1048) will be released for transmission ([2P100590](#)).**

- **T1P1 will be requested to approve the addition of the development of a Sessions Services ID Technical Report document to the T1P1.4 workplan. The new T1P1.4 Workplan (2P140341) will be provided as FYI to support this approval ([2P100600](#)).**
- **The T1P1 Chair will be requested to approve an interim meeting of T1P1.4 via conference call on 20 June 2002 during the period of 11:00 AM to 4:00 PM US east coast time (8:00 AM to 1:00 PM US west coast time). The objectives of this interim meeting are summarized as follows:**
  - **Review all four (4) sections of the I-CDMA Stage 3 text (2P140270 through 2P140300).**
  - **Review draft of Session Services ID Technical Report document and any contributions related to the initial list of Session Service ID assignments.**
  - **Continue discussions on WWINA Network Interfaces**

10. Other Business

No other business was discussed.

11. Next Meeting

Contingent upon approval by the T1P1 Chair, the next T1P1.4 meeting will be an interim meeting of T1P1.4 via conference call on 20 June 2002 during the period of 11:00 AM to 4:00 PM US east coast time (8:00 AM to 1:00 PM US west coast time).

The next face-to-face T1P1.4 will be held in conjunction with the T1P1 meetings in Westminster, CO during the period of 23-26 July 2002. The Chair will request two (2) meeting days in addition to the WG4 closing Plenary in series with the closing plenaries of the other T1P1 WGs.

12. Adjourn

The meeting was adjourned on 1 May 2002 at 11:30 AM local time.

**ATTACHMENT A**

The following persons participated in this T1P1.4 meeting:

<b>NAME</b>	<b>COMPANY</b>	<b>E-MAIL</b>
Rob Fries	Atmel Corporation	<a href="mailto:rfries@atmel.com">rfries@atmel.com</a>
Russ Kwab	Atmel Corporation	<a href="mailto:rkwab@atmel.com">rkwab@atmel.com</a>
Donald Codling	FBI-CIS	<a href="mailto:dcodling@askcalea.net">dcodling@askcalea.net</a>
Sadao Takenaka	Fujitsu*	<a href="mailto:sadao.takenaka@fnc.fujitsu.com">sadao.takenaka@fnc.fujitsu.com</a>
Brian Kiernan	InterDigital Communications*	<a href="mailto:brian.kiernan@interdigital.com">brian.kiernan@interdigital.com</a>
Guanghan Xu	Navini Networks*	<a href="mailto:xu@navini.com">xu@navini.com</a>
Ken Davey	Navini Networks*	<a href="mailto:kdavey@navini.com">kdavey@navini.com</a>
Clif Barber	Tantivy Communications*	<a href="mailto:cbarber@tantivy.com">cbarber@tantivy.com</a>
Howard Heller	Tantivy Communications*	<a href="mailto:hheller@tantivy.com">hheller@tantivy.com</a>
Jim Proctor	Tantivy Communications*	<a href="mailto:jproctor@tantivy.com">jproctor@tantivy.com</a>
John Hoffmann	Tantivy Communications*	<a href="mailto:jhoffmann@tantivy.com">jhoffmann@tantivy.com</a>
Sandra Lopez	Telcordia*	<a href="mailto:slopez@telcordia.com">slopez@telcordia.com</a>

\* T1P1 Member Company

**T1P1.3 GSM/3G System and Network Working Group  
Meeting Summary  
April 30 – May 2, 2002  
Key West, FL**

1. **Attendees:** Approximately 26
2. **Meeting Schedule:** The T1P1.3 GSM/3G System and Network Working Group met for 2 1/2 days. Gary Jones of VoiceStream chaired the meeting. Sonia Garapaty of Nortel Networks is the vice chair. The agenda and attendance sheets are attached as Annexes 1 and 2.
3. **Contributions:** The SWG addressed 84 contributions. The meeting was held electronically, with all of the contributions available in electronic format. The document log is in Tdoc 137.
4. **Working Method:** The working group's activities were conducted in plenary sessions.
5. **Working Group Activities:** The group addressed all the input documents with the following results:

5.1. The agenda in T1P1.3/2002 - 56R1 was reviewed and accepted.

It was noted that T1P1.3 met jointly with T1P1.2 all-day Tuesday to address issues of mutual interest. The agenda for this joint meeting is in T1P1.2/2001 – 54r1.

5.2. IPR Question – Other than reaffirming their company's previously stated positions, does anyone wish to make any statement regarding IPR on standards being worked in this committee?

No response

5.3. Joint Meeting with T1P1.2 – Tuesday April 30<sup>th</sup>

*Only discussions of some of the documents have been summarized below. See T1P1.2 report for details of the documents discussed at the joint meeting.*

**5.3.1. ITU Related Matters**

Gary Jones provided and summarized the report from the ITU-T Working Party 8F meeting (T1P1.3/2002 – 79). Following issues were highlighted to the group:

- The ITU-R WP 8F Workplan Chart (118). It was noted that annual updates of the RSPC (M.1457) in ITU-R and, if necessary, revisions to the recommendations for IMT-2000 will be needed to keep the ITU updated.
- A new Public Protection and Disaster Relief (PPDR) group within WP 8F is working on the concept of using IMT-2000 technologies and systems to satisfy their needs for public protection and disaster relief. This new group has triggered a number of discussions with the U.S. The U.S. position is that the two purposes of this group are not the same and do not have the same needs. Public protection is a real-time constant need, where disaster relief is transient in that they occur in random spots for a limited amount of time.

The T1P1.2 leadership summarized the status on the Update to M.1457 for RSPC:

- Update to section 5.1.2 FDD of ITU-R M.1457 (T1P1.2/2002 – 42r2)

- Update to section 5.3.2 TDD of ITU-R M.1457 (T1P1.2/2002 – 43r2)
- Document name and Location of the T1 specifications for RSPC update (T1P1.2/2002 – 49)

The group considered a discussion within the 3GPP TSG Leadership on the need to keep 3GPP Release 4. Members were encouraged to consider this issue within their companies, as it will probably be raised at the next 3GPP plenary.

### **5.3.2. Wireless Priority Services**

The T1P1.3 Chairman summarized the status of the Wireless Priority Service (WPS) work within the U.S. with DynCorp. It was noted that priority service is about to be implemented in the cities of New York and Washington DC, on an immediate basis and that the GSM community is participating in discussions with the government on deploying WPS nationwide.

Jim Garrahan, Chair of the 3GPP SA1 Priority Services subworking group, summarized the status of the Priority Services work within 3GPP. The output of the Priority Services feasibility study has been included in 3GPP Technical Report 22.950.

### **5.3.3. E911 (130, 131)**

At the last T1P1 meeting, T1P1 sent a liaison to T1S1 on Inclusion of additional shapes describing calling party's location. In response, T1S1 sent a liaison to NENA and APCO (130) requesting them to consider the proposal from T1P1 to include the additional CGL shapes in T1.628.

T1S1 also sent a reply liaison to T1P1 (131) requesting T1P1 provide additional information regarding the use of the additional shapes and whether this would significantly improve the statistical basis of determining the wireless E9-1-1 caller's location. T1S1 suggested that T1P1 work directly with APCO and NENA and inform T1S1 of the outcome.

The group agreed to send a Liaison to the new Emergency Services Interoperability Forum (ESIF), and copy NENA, APCO and T1S1. VoiceStream committed to have a representative in the meeting to present the Liaison.

*T1P1 is invited to approve this Liaison ([T1P1/2002 - 063](#)).*

### **5.3.4. TR45.2 AHES / E911 (55)**

Margaret Livingston, E911 Rapporteur, provided for information the latest revision of the J-STF-036 Rev. A (55).

### **5.3.5. Reports from 3GPP**

5.3.5.1. OPP/PCG (95, 97 – 100, 103, 105, 107, 109 – 114)

Highlights from the discussion of the documents from the PCG #8 meeting on April 25<sup>th</sup> and OP #8 meeting on April 26<sup>th</sup>:

- Stephen Hayes, 3GPP CN Chair and co-chair of the April 3 – 4 IP CN Harmonization Workshop reviewed the recommendations from the workshop (103). The workshop was hosted by OHG and MWIF in order to promote harmonization of the IP Core Network between 3GPP and 3GPP2. The workshop agreed that priority will be given to harmonization

in the areas of: OSA/Parlay and IP Multimedia Subsystem (IMS). No future harmonization workshops are planned. **See Section 5.4.3.4.**

- Document from the 3GPP MCC on Year 2002 Budget and Partner Contributions (112). It was noted that T1's (21 Members in SA, CN RAN and T, and 11 Members in GERAN) contribution to 3GPP for 2002 is 1131.37 kEuros.

5.3.5.2. Summary of 3GPP #15 Plenaries (69, 89, 90, 91, 92, 93)

Gary Jones, TSG SA Vice Chair, presented the TSG SA report to the PCG meeting (93).

Stephen Hayes, TSG CN Chair, presented the TSG CN report to the PCG meeting (89).

Don Zelmer, TSG RAN Vice Chair, presented the TSG RAN report to the PCG meeting (92).

Ed Ehrlich, TSG T Vice Chair, presented the TSG T report to the PCG meeting (69).

Margaret Livingston presented the TSG GERAN report to the PCG meeting (90).

5.3.5.3. 3GPP Release 5 (99) & Release 6 (100) Content

5.3.5.4. Status of 3GPP Work Items (97, 98)

5.3.5.5. 3GPP Meeting Calendar (63, 64).

**5.3.6. IEEE 802 issues (129)**

Gary Jones presented a Wireless News article titled "Wireless Providers In 'Sirius' Trouble" (129). The article discussed the petition by a satellite radio company, Sirius, that severely hinders providers using the unlicensed 2.4GHz wireless frequency. Sirius, according to the petition, is specifically worried about emissions caused by interference between 802.11-based products, like a wireless phone or personal digital assistant (PDA), operating on the 2.4GHz frequency and satellite radio. This was reviewed by T1P1.2 and TR46.2.

**5.3.7. IEEE 802.16 issues (136)**

At the last IEEE 802.16 meeting it was agreed to create an IEEE 802.16 Working Group Study Group on Mobile Broadband Wireless Access (MBWA) group.

Brian Kiernan presented a T1P1.4 contribution authored by Mel Woinsky, Tantivy, summarizing the mission and scope of T1P1 and Mobile Broadband Wireless Access (MBWA) (IEEE 802.16) (T1P1.4/2002 – 32r1). The IEEE 802.6 change in mission and formation of the MBWA expands their work into mobile systems overlapping work in other organizations (T1, TIA, 3GPP, 3GPP2).

A draft liaison from T1P1 to IEEE 802.16 was developed, in conjunction with T1P1.2 and T1P1.4.

*T1P1 is invited to review and approve this draft liaison ([T1P1/2002 – 064](#)).*

**5.3.8. Other issues (106)**

A number of ETSI Members that are active within 3GPP have formed "The European Friends of 3GPP", otherwise known as "EF3" (106). Their intention is to collectively host 3GPP meetings

within Europe and to do so in a manner that is cost effective, efficient, and which meets with the expectations of the 3GPP community.

#### 5.4. T1P1.3 Meeting

##### **5.4.1. Correspondence (119, 120, 121, 122, 123, 124, 125, 126, 127, 128, 129)**

Nortel Networks submitted a contribution to the 3GPP SA3 LI group (120). The contribution states that the decision of whether U.S. specific sections or clauses are INFORMATIVE or NORMATIVE is a decision of the U.S. This contribution prompted a letter from BT to T1P1 on Standards Process (119). BT raised a number of concerns and questions with the approach proposed in the document, which they believe is out of line with the 3GPP working procedures. It was commented that Nortel has smoothed things over at the last SA3 LI meeting, where the US specific text is included in the normative part of 33.108. However, the author of this liaison was not present at the SA3 LI meeting. It was seen as unusual and inappropriate for T1P1 to receive a liaison from an individual company. Although it is not for T1P1.3 to decide whether a reply liaison should be sent as the liaison was sent to T1P1, the group agreed that one was not needed.

GSMNA sent a liaison to SA5 on OAM&P standardization (121). GSM NA is concerned that the core network elements portion of the 3GPP specifications may be incompatible with the ITU standardization appropriate to the same interfaces. In addition, variations with the associated ITU-T standards of the existing protocols and interfaces for fixed network facilities should be minimized to the fullest extent possible. GSM NA urged SA5 to take these requirements into consideration while developing 3GPP Specifications. SA5 replied to the liaison (122) stating that the proposal is currently under discussion within 3GPP SA5 and a conclusion is planned following their May meeting SA5#28. No action is required by T1P1.

ITU-T SG11 sent a liaison to T1 and TIA indicating their agreement to develop solutions for interworking between AAL Type 2 signalling protocols and other signalling protocols controlling bearer technologies (123). No action is required by T1P1, as T1P1 does not do interworking at this level.

Ordering and Billing Forum (OBF) sent a liaison to TR45.2 with cc: T1P1 on Recording and Signaling Changes Required to Support Billing (124). OBF has the need to identify the switch location where call detail records actually originate. This jurisdictional information parameter needs to be carried through the network to the terminating recording office and captured in a terminating switch recording. They are asking for assistance from TR45.2 since T1S1 told them that TR45.2 is responsible for addressing the use of Jurisdictional Information Parameter (JIP) for Wireless Number Portability. This is incorrect, as this is T1P1's responsibility for the GSM technology.

T1P1.3 agreed to send a liaison to GSM NA, requesting they reevaluate the need for a standardized JIP parameter, in light of the request from OBF, and respond back to T1P1 with any need for standardization.

***T1P1 is invited to review and approve this draft liaison ([T1P1/2002 – 065](#)).***

ATIS Preparation Guidelines for Press Releases (125) was provided for information.

Liaison to T1P1 requesting the Revision/Affirmation/Withdrawal of 11 T1 standards (126) was provided for information, as this decision will be made at the T1P1 plenary.

T1X1 Liaison to T1P1 (127) dated June 29, 2001.

T1X1 sent a liaison to NIST with cc: T1P1 (128) dated Jan. 23, 2002 where T1X1.3 advises of several areas which they feel are very important to the continued operation of existing GPS receivers for wire-line telecommunication use. No comments and no action required by T1P1.3.

#### **5.4.2. ITU-R WP8F Related matters**

**Most of the documents were already introduced in the joint meeting. As these documents are radio-related, they were further discussed in T1P1.2. See T1P1.2 report for details.**

The chair presented for information the WP 8F report (79) and the detailed reports of each of the ITU-R WP 8F groups (115).

#### **5.4.3. Reports from 3GPP**

**Most of the 3GPP related documents were already introduced in the joint meeting. Only those that may require actions by T1P1.3 were discussed in detail here.**

The following documents were provided for information:

- ? 3GPP MCC Report (71)
- ? 3GPP Workplan (65)
- ? 3GPP Specification Status list (77, 78).

##### **5.4.3.1. 3GPP OP/PCG**

The Chair presented the report of the EDGE Operator's Forum (96) for information.

The latest approved version of the 3GPP Working Procedures (107) was provided for information.

Liaison from IMTC requesting for a more formal relationship with 3GPP (113). A similar request was received from the newly created Open Mobile Architecture (OMA) initiative (114) as they will be specifying applications that will be based on 3GPP standards. The OP discussed these proposals and did not find the need for a formal relationship beyond that of a liaison. This issue may come up at the next 3GPP plenaries. No action is required by T1P1.

##### **5.4.3.2. 3GPP TSG CN**

Stephen Hayes, TSG CN Chairman, presented the 3GPP TSG CN status report to SA#15 plenary (66). T1P1.3 did not identify any issues.

A question was raised to Stephen on whether the work on End-to-End (E2E) QoS in the 3GPP CN groups align with work going on in other standards organizations? In particular, the ETSI TIPHON QoS model is not fully consistent with the IETF model. Stephen answered that 3GPP is not trying to align with an overall E2E QoS model, but doing only QoS within the 3GPP network. He explained that work is ongoing in the IETF on future E2E QoS protocols. Current E2E QoS protocols such as RSVP are yet been widely accepted or deployed. 3GPP has decided to use the IETF protocol, Diffserv toward external networks.

Randolph Wohlert, T1A1 Chair, stated that T1A1 has the responsibility for the U.S. to define an E2E QoS model. T1A1 would probably be the T1 WG responsible for drafting a requirements document, if needed.

**Randolph and Stephen volunteered to give a presentation on the various E2E QoS models for the next T1P1.3 meeting. After the presentation, T1P1.3 can decide if any actions are needed by T1P1.**

5.4.3.3. IETF coordination

Stephen Hayes presented the IETF Dependencies and Priorities report (102). Stephen along with the IETF Area Directors maintains the list, which is now up to 60, of the 3GPP dependent IETF drafts.

5.4.3.4. OHG IP Core Network Harmonization

The group discussed the output of the OHG IP Core Network Harmonization workshop. The group drafted a proposed T1P1 liaison to the T1 delegation to 3GPP (135) asking the delegation to endorse a set of guidelines for dealing with IMS/OSA harmonization between 3GPP and 3GPP2. In general, the delegation is asked to endorse the output of the Toronto IP CN Harmonization workshop (results of the workshop are in 103) and to do the work in 3GPP with participation from 3GPP2 members.

The liaison was revised and approved by T1P1.3 (135r2).

***T1P1 is invited to approve this liaison ([T1P1/2002 – 062](#)).***

5.4.3.5. The 3GPP TSG T #15 progress report (69) was provided for information.

5.4.3.6. GERAN

The GERAN report to the PCG (90) was provided for information. Of interest to T1P1 is GERAN's decision to perform a feasibility study on the subject of A/Gb-mode enhancement.

The GERAN project plan report (91) was provided for information as a good summary on the status of all the GERAN work items.

5.4.3.7. 3GPP TSG SA

Gary Jones, TSG SA Vice Chairman, presented the 3GPP TSG SA report to PCG (93).

It was noted from the report that TSG-SA have started discussions of how to better stipulate the creation of a long term vision. At TSG-SA #15 it was agreed to plan for a "long term vision" creation kick-off meeting in conjunction with TSG-SA #17.

The following documents from the 3GPP TSG #14 Plenary were provided for information:

- 3GPP SA Working Group 1 Report (72). Randolph Wohler, TSG SA WG1 vice-chair, briefly summarized the status of work within SA1. Randolph stated that a lot of work is going on in SA1 with about 12 to 13 sub working groups.
- 3GPP SA Working Group 2 Report (73).
- 3GPP SA Working Group 3 Report (74).
- 3GPP SA Working Group 4 Report (75).
- 3GPP SA Working Group 5 Report (76).

5.4.3.8. Generic User Profile (GUP)

Randolph Wohlert gave a brief verbal presentation of the 3GPP work on GUP. The GUP task list was provided for information (104).

6. Plenary Requests:

- ? Approve a liaison to T1 Delegation to 3GPP on view of T1P1 on the output of the IP Harmonization Workshop (**T1P1/2002-062**)
- ? Approve a liaison to ESIF on the need for additional geographic shapes for reporting location. (**T1P1/2002-063**)
- ? Approve a liaison to IEEE 802.16 on formation of Study Group on Mobile Broadband Wireless Access Networks (MBWA) (**T1P1/2002-064**)
- ? Review and approve a liaison to GSM NA on JIP (**T1P1/2002-065**)

7. Meeting Schedule for the next meeting:

Next meeting is July 23 – 26, 2002 in Westminster, CO. Meeting notice is included in T1P1/2002 – 042.

T1P1.2 and T1P1.3 will meet jointly on Tuesday beginning at 9:00 AM and continue until all joint activities are completed, after which each of the working groups will run their meetings in parallel through Thursday noon. T1P1.2 and T1P1.3 will then have their closing plenaries sequentially on Thursday afternoon. The T1P1 plenary will be held on Friday morning.

**T1P1.3 GSM/3G System and Network  
Proposed Agenda  
April 30 – May 2, 2002  
Key West, FL**

1. Joint meeting with T1P1.2 (9:00 AM) **54**
2. Recess from Joint Meeting and reconvene separately
3. Introductions and Attendance Registration
4. Approval of the Agenda **56R1**
5. Announcements:
  - 5.1. Joint meeting of T1P1.2/TR46.2 on Wednesday 01/23
  - 5.2. Closing Session (Thursday after T1P1.2 closing)
6. IPR Question – Other than reaffirming their company’s previously stated positions, does anyone wish to make any statement regarding IPR on standards being worked in this committee?
7. Review and Attribution of Contributions
8. Correspondence **120, 119, 121, 122, 123, 124, 125, 125, 127, 128, 129**
9. Reports and Liaisons from External groups
  - 9.1. ITU
    - 9.1.1. ITU-R WP8F **79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 115, 116, 117, 118**
    - 9.1.2. ITU-T SSG
10. Reports from 3GPP 57, 58, 59, 60, 61, 62, 63, 64, 65, 106
  - 10.1. OP/PCG **95, 96, 97, 98, 99, 100, 107, 108, 109, 110, 111, 112, 113, 114,**
  - 10.2. MCC **71, 77, 78, 105**
  - 10.3. Report from RAN **68, 92, 94**
  - 10.4. Report from 3GPP TSG CN **66, 89, 101, 102, 103, 104**
  - 10.5. Report from 3GPP TSG T **69**
  - 10.6. Report from GERAN **67, 90, 91**
  - 10.7. Report from 3GPP TSG SA **70, 93, 72, 73, 74, 75, 76**
  - 10.8. Submissions to WP8F
  - 10.9. Submissions to SSG
11. Actions Required from Joint Meeting with T1P1.2
  - 11.1. PCS1900 Standards Update
  - 11.2. GTT (TTY)
  - 11.3. TR45.2 AHES
  - 11.4. Location Services **55, 130, 131**
  - 11.5. Surveillance (LAES)
  - 11.6. Priority Access Services
12. Postponed issues from earlier in the meeting
13. Future Work/Assignments/Meetings
14. Any other business
15. Adjourn

**T1P1.3 GSM/3G System and Network  
Meeting Participants  
April 30 – May 2, 2002  
Key West, FL**

<b>Name</b>	<b>Company</b>	<b>Email Address</b>
Peter Musgrove	AWS	<a href="mailto:Peter.musgrove@attws.com">Peter.musgrove@attws.com</a>
Rob Fries	Atmel	<a href="mailto:rfries@atmel.com">rfries@atmel.com</a>
Don Zelmer	Cingular	<a href="mailto:Don.Zelmer@cingular.com">Don.Zelmer@cingular.com</a>
Quent Cassen	Conexant	<a href="mailto:quent.cassen@conexant.com">quent.cassen@conexant.com</a>
Chris Fitzgerald	DISA	<a href="mailto:Fitzgerc@ftm.disa.mil">Fitzgerc@ftm.disa.mil</a>
Stephen Hayes	Ericsson	<a href="mailto:stephen.hayes@ericsson.com">stephen.hayes@ericsson.com</a>
Asok Chatterjee	Ericsson	<a href="mailto:Asok.chatterjee@ericsson.com">Asok.chatterjee@ericsson.com</a>
Steve Mills	Hewlett-Packard	<a href="mailto:Steve_mills@hp.com">Steve_mills@hp.com</a>
Gil LaVean	InterDigital	<a href="mailto:Laveange@intrepid.net">Laveange@intrepid.net</a>
Brian Kiernan	Inter Digital	<a href="mailto:Brian.kierenan@intnerdigital.com">Brian.kierenan@intnerdigital.com</a>
Jean C Trakinat	NCS	<a href="mailto:Trakinaj@ncs.gov">Trakinaj@ncs.gov</a>
Damodar Anandampillai	NEC America	<a href="mailto:danandampillai@necam.com">danandampillai@necam.com</a>
Ed Ehrlich	Nokia	<a href="mailto:ed.ehrlich@nokia.com">ed.ehrlich@nokia.com</a>
Margaret Livingston	Nokia	<a href="mailto:Margaret.Livingston@nokia.com">Margaret.Livingston@nokia.com</a>
Sonia Garapaty	Nortel Networks	<a href="mailto:Sonia.garapaty@nortelnetworks.com">Sonia.garapaty@nortelnetworks.com</a>
Mike Karimian	Panasonic	<a href="mailto:Mkarimian@panasonicatlanta.com">Mkarimian@panasonicatlanta.com</a>
Wing-Cheong Yeung	Qualcomm	<a href="mailto:weung@qualcomm.com">weung@qualcomm.com</a>
Randy Wohlert	SBC Communications	<a href="mailto:rwohlert@tri.sbc.com">rwohlert@tri.sbc.com</a>
Mac McKenzie	Spirent Communications	<a href="mailto:Mac.mckenzie@spirentcom.com">Mac.mckenzie@spirentcom.com</a>
Jim Garrahan	Telcordia Technologies	<a href="mailto:j.garrahan@telcordia.com">j.garrahan@telcordia.com</a>
Joel Butz	Tellabs	<a href="mailto:Joel.butz@tellabs.com">Joel.butz@tellabs.com</a>
Brian Yarger	Tellabs	<a href="mailto:Brian.yarger@tellabs.com">Brian.yarger@tellabs.com</a>
Gary Jones	VoiceStream	<a href="mailto:Gary.jones@voicestream.com">Gary.jones@voicestream.com</a>
Mark Younge	VoiceStream	<a href="mailto:Mark.younge@voicestream.com">Mark.younge@voicestream.com</a>
Jim Proctor	Tantivy	<a href="mailto:jproctor@tantivy.com">jproctor@tantivy.com</a>
Clif Barber	Tantivy	<a href="mailto:cbarber@tantivy.com">cbarber@tantivy.com</a>