Nokia Corporation v. Apple Inc. Doc. 207 Att. 1

EXHIBIT 1

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AO 88A (Rev. 06/09) Subpoena to Testify at a Deposition in a Civil Action

UNITED STATES DISTRICT COURT

for the

Northern District of Texas

Nokia Corporation
Plaintiff
v.
Apple Inc.
Defendant

Civil Action No. 09-cv-791-GMS

(If the action is pending in another district, state where: District of Delaware)

SUBPOENA TO TESTIFY AT A DEPOSITION IN A CIVIL ACTION

To: Nortel Networks Inc., 2221 Lakeside Boulevard, Richardson, Texas 75082-4399

☑ *Testimony:* **YOU ARE COMMANDED** to appear at the time, date, and place set forth below to testify at a deposition to be taken in this civil action. If you are an organization that is *not* a party in this case, you must designate one or more officers, directors, or managing agents, or designate other persons who consent to testify on your behalf about the following matters, or those set forth in an attachment:

Place:	Date and Time:
Alpha Reporting Service 7920 Beltline Road, Suite 500 Dallas, Texas 75254	04/18/2011 9:00 am

The deposition will be recorded by this method: Video and Stenographer

☑ *Production:* You, or your representatives, must also bring with you to the deposition the following documents, electronically stored information, or objects, and permit their inspection, copying, testing, or sampling of the material:

See Attachment A to Notice of Deposition
Please produce documents responsive to the attached requests by no later than March 11, 2011 at Alpha Reporting Service, 7920 Beltline Road, Suite 500, Dallas, Texas 75254

The provisions of Fed. R. Civ. P. 45(c), relating to your protection as a person subject to a subpoena, and Rule 45 (d) and (e), relating to your duty to respond to this subpoena and the potential consequences of not doing so, are attached.

Date: 02/09/2011

CLERK OF COURT

OR

Signature of Clerk or Deputy Clerk

Attorney's signature

The name, address, e-mail, and telephone number of the attorney representing *(name of party)* Apple Inc., who issues or requests this subpoena, are:

Bryan Conley, Wilmer Cutler Pickering Hale and Dorr LLP, 60 State Street, Boston, Massachusetts 02109.
Telephone: 617-526-6765. Fax: 617-526-5000. bryan.conley@wilmerhale.com

Federal Rule of Civil Procedure 45 (c), (d), and (e) (Effective 12/1/07)

(c) Protecting a Person Subject to a Subpoena.

(1) ***Avoiding Undue Burden or Expense; Sanctions.*** A party or attorney responsible for issuing and serving a subpoena must take reasonable steps to avoid imposing undue burden or expense on a person subject to the subpoena. The issuing court must enforce this duty and impose an appropriate sanction — which may include lost earnings and reasonable attorney's fees — on a party or attorney who fails to comply.

(2) ***Command to Produce Materials or Permit Inspection.***

(A) *Appearance Not Required.* A person commanded to produce documents, electronically stored information, or tangible things, or to permit the inspection of premises, need not appear in person at the place of production or inspection unless also commanded to appear for a deposition, hearing, or trial.

(B) *Objections.* A person commanded to produce documents or tangible things or to permit inspection may serve on the party or attorney designated in the subpoena a written objection to inspecting, copying, testing or sampling any or all of the materials or to inspecting the premises — or to producing electronically stored information in the form or forms requested. The objection must be served before the earlier of the time specified for compliance or 14 days after the subpoena is served. If an objection is made, the following rules apply:

(i) At any time, on notice to the commanded person, the serving party may move the issuing court for an order compelling production or inspection.

(ii) These acts may be required only as directed in the order, and the order must protect a person who is neither a party nor a party's officer from significant expense resulting from compliance.

(3) ***Quashing or Modifying a Subpoena.***

(A) *When Required.* On timely motion, the issuing court must quash or modify a subpoena that:

(i) fails to allow a reasonable time to comply;

(ii) requires a person who is neither a party nor a party's officer to travel more than 100 miles from where that person resides, is employed, or regularly transacts business in person — except that, subject to Rule 45(c)(3)(B)(iii), the person may be commanded to attend a trial by traveling from any such place within the state where the trial is held;

(iii) requires disclosure of privileged or other protected matter, if no exception or waiver applies; or

(iv) subjects a person to undue burden.

(B) *When Permitted.* To protect a person subject to or affected by a subpoena, the issuing court may, on motion, quash or modify the subpoena if it requires:

(i) disclosing a trade secret or other confidential research, development, or commercial information;

(ii) disclosing an unretained expert's opinion or information that does not describe specific occurrences in dispute and results from the expert's study that was not requested by a party; or

(iii) a person who is neither a party nor a party's officer to incur substantial expense to travel more than 100 miles to attend trial.

(C) *Specifying Conditions as an Alternative.* In the circumstances described in Rule 45(c)(3)(B), the court may, instead of quashing or modifying a subpoena, order appearance or production under specified conditions if the serving party:

(i) shows a substantial need for the testimony or material that cannot be otherwise met without undue hardship; and

(ii) ensures that the subpoenaed person will be reasonably compensated.

(d) Duties in Responding to a Subpoena.

(1) ***Producing Documents or Electronically Stored Information.*** These procedures apply to producing documents or electronically stored information:

(A) *Documents.* A person responding to a subpoena to produce documents must produce them as they are kept in the ordinary course of business or must organize and label them to correspond to the categories in the demand.

(B) *Form for Producing Electronically Stored Information Not Specified.* If a subpoena does not specify a form for producing electronically stored information, the person responding must produce it in a form or forms in which it is ordinarily maintained or in a reasonably usable form or forms.

(C) *Electronically Stored Information Produced in Only One Form.* The person responding need not produce the same electronically stored information in more than one form.

(D) *Inaccessible Electronically Stored Information.* The person responding need not provide discovery of electronically stored information from sources that the person identifies as not reasonably accessible because of undue burden or cost. On motion to compel discovery or for a protective order, the person responding must show that the information is not reasonably accessible because of undue burden or cost. If that showing is made, the court may nonetheless order discovery from such sources if the requesting party shows good cause, considering the limitations of Rule 26(b)(2)(C). The court may specify conditions for the discovery.

(2) ***Claiming Privilege or Protection.***

(A) *Information Withheld.* A person withholding subpoenaed information under a claim that it is privileged or subject to protection as trial-preparation material must:

(i) expressly make the claim; and

(ii) describe the nature of the withheld documents, communications, or tangible things in a manner that, without revealing information itself privileged or protected, will enable the parties to assess the claim.

(B) *Information Produced.* If information produced in response to a subpoena is subject to a claim of privilege or of protection as trial-preparation material, the person making the claim may notify any party that received the information of the claim and the basis for it. After being notified, a party must promptly return, sequester, or destroy the specified information and any copies it has; must not use or disclose the information until the claim is resolved; must take reasonable steps to retrieve the information if the party disclosed it before being notified; and may promptly present the information to the court under seal for a determination of the claim. The person who produced the information must preserve the information until the claim is resolved.

(e) Contempt. The issuing court may hold in contempt a person who, having been served, fails without adequate excuse to obey the subpoena. A nonparty's failure to obey must be excused if the subpoena purports to require the nonparty to attend or produce at a place outside the limits of Rule 45(c)(3)(A)(ii).

IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF DELAWARE

NOKIA CORPORATION,	)	
Plaintiff,	)	C.A. 09-791-GMS
v.	)	
APPLE, INC.,	)	
Defendant.	)	
AND RELATED COUNTERACTION	)	

APPLE INC.'S NOTICE OF DEPOSITION TO NORTEL NETWORKS INC.

PLEASE TAKE NOTICE that Apple Inc. ("Apple") will take the deposition of Nortel Networks Inc. ("Nortel"), commencing on Monday, April 18, 2011 at 9:00 a.m. at the offices of Alpha Reporting Service, 7920 Beltline Road, Suite 500, Dallas, Texas 75254, and continuing day-to-day until completed.

Nortel is required to designate, pursuant to Rule 30(b)(6) of the Federal Rules of Civil Procedure, one or more of its officers, directors or managing agents, or other persons with knowledge of the matters set forth in Attachment A of this notice, to appear and testify on its behalf at the deposition. The persons so designated shall testify as to matters known or reasonably available to Nortel. Nortel is requested to provide Apple's counsel, as soon as reasonably possible, but no later than ten (10) business days before the deposition, written notice of the following: (a) the name and employment position of each designee who has consented to testify on behalf of Nortel in response to this Notice, and (b) all matters set forth below as to which each such designee has agreed to testify on behalf of Nortel.

The examination will be taken before a Notary Public or other person authorized to administer oaths and will be recorded stenographically and by video. Testimony derived pursuant to this Notice of Deposition shall be used for any and all appropriate purposes permitted by the Federal Rules of Evidence.

You are invited to attend and cross-examine.

OF COUNSEL:

Richard L. Horwitz
David E. Moore
POTTER ANDERSON
& CARROON LLP
Hercules Plaza, 6th Floor
1313 N. Market Street
Wilmington, DE 19899
Tel: (302) 984-6000

Kenneth H. Bridges
Michael T. Pieja
BRIDGES & MAVRAKAKIS LLP
540 Cowper Street
Suite 100
Palo Alto, CA 94301
Tel: (650) 681-4475

Dated: February 9, 2011

WILMER CUTLER PICKERING HALE AND DORR LLP

By: */s/ Bryan Conley*
William F. Lee (*Pro Hac Vice*)
Bryan S. Conley (*Pro Hac Vice*)
60 State Street
Boston, Massachusetts 02109
Tel: (617) 526-6000
William.Lee@wilmerhale.com
Bryan.Conley@wilmerhale.com

Mark D. Selwyn (*Pro Hac Vice*)
950 Page Mill Road
Palo Alto, California 94304
Tel: (650) 858-6000
Mark.Selwyn@wilmerhale.com

Attorneys for Defendant and Counterclaim-Plaintiff Apple Inc.

ATTACHMENT A

DEFINITIONS

The following definitions are applicable herein:

1. "3GPP" means the Third Generation Partnership Project.

2. "The '135 Patent" means United States Patent No. 6,694,135, issued on February 17, 2004, and entitled "Measurement Report Transmission in a Telecommunications System," and any foreign counterparts.

3. "The '178 Patent" means United States Patent No. 5,862,178, issued on January 19, 1999, and entitled "Method and Apparatus for Speech Transmission in a Mobile Communications System," and any foreign counterparts.

4. "The '465 Patent" means United States Patent No. 5,802,465, issued on September 1, 1998, and entitled "Data Transmission in a Radio Telephone Network," and any foreign counterparts.

5. "The '548 Patent" means United States Patent No. 6,775,548, issued on August 10, 2004, and entitled "Access Channel for Reduced Access Delay in a Telecommunications System," and any foreign counterparts.

6. "The '651 Patent" means United States Patent No. 5,946,651, issued on August 31, 1999, and entitled "Speech Synthesizer Employing Post-Processing for Enhancing the Quality of the Synthesized Speech," and any foreign counterparts.

7. "The '672 Patent" means United States Patent No. 7,092,672, issued on August 15, 2006, and entitled "Reporting Cell Measurement Results in a Cellular Communication System," and any foreign counterparts.

8. "The '904 Patent" means United States Patent No. 6,359,904, issued on March

19, 2002, and entitled “Data Transfer in a Mobile Telephone Network,” and any foreign counterparts.

9. “Alcatel-Lucent” means Alcatel-Lucent and any of its predecessors, successors, corporate parents, direct or indirect subsidiaries, divisions, affiliated Entities, officers, directors, employees, consultants, agents, representatives, servants, and all other Persons acting on its behalf, specifically including Alcatel and Lucent Technologies.

10. “And” and “or” shall be construed conjunctively or disjunctively, whichever makes this subpoena more inclusive.

11. “Any,” “all” and “each” shall be construed as each and every.

12. “AT&T” means AT&T Inc. and includes, without limitation, each of its predecessors, present or former parents, subsidiaries, affiliated or controlled companies or joint ventures.

13. “ATIS” means the Alliance for Telecommunications Industry Solutions.

14. “Bellcore” means Bell Communications Research, Inc. and includes, without limitation, each of its predecessors, present or former parents, subsidiaries, affiliated or controlled companies or joint ventures, including without limitation, Telcordia Technologies.

15. “British Telecom” means British Telecom (BT) and includes, without limitation, each of its predecessors, present or former parents, subsidiaries, affiliated or controlled companies or joint ventures, including without limitation, Concert Communications Services and BT Group PLC.

16. “Committee T1” means the Committee T1 that was sponsored by the American National Standards Institute.

17. “Communication” means the transmittal of information (in the form of facts,

ideas, inquiries or otherwise).

18. "Concerning" means relating to, referring to, describing, evidencing, referencing, discussing, or constituting.

19. "Document" and/or "Thing" has the broadest definition of document under the Federal Rules of Civil Procedure and the cases interpreting those rules, and includes all tangible things, all originals (or, if originals are not available, identical copies thereof), all non-identical copies of a document, all drafts of final documents, all other written, printed, or recorded matter of any kind, and all other data compilations from which information can be obtained and translated if necessary, that are or have been in your actual or constructive possession, custody or control, regardless of the medium on which they are produced, reproduced, or stored (including without limitation computer programs and files containing any requested information), and any recording or writing, as these terms are defined in Rule 1001 of the Federal Rules of Evidence. Any document bearing marks, including without limitation, initials, stamped initials, comments, or notations not a part of the original text or photographic reproduction thereof, is a separate document.

20. "EDGE" means Enhanced Data Rates for GSM Evolution.

21. "EIA" means Electronic Industries Alliance.

22. "Entity" or "Entities" includes natural Persons, proprietorships, partnerships, firms, corporations, public corporations, municipal corporations, governments, including foreign national governments, the government of the United States or any state or local government, and all departments and agencies thereof, political subdivisions, groups, associations, or organizations.

23. "Ericsson" means Telefon AB LM Ericsson and all of its predecessors,

successors, corporate parents, direct or indirect subsidiaries, divisions, affiliated Entities, officers, directors, employees, consultants, agents, representatives, servants, and all other Persons acting on its behalf.

24. "Essential" means necessary for implementation of any Wireless Standard such that the standard, or some part of the standard, could not be practiced without infringing the patent or technology to which "essential" refers.

25. "ETSI" means the European Telecommunications Standards Institute.

26. "France Telecom" means France Telecom S.A. and includes, without limitation, each of its predecessors, present or former parents, subsidiaries, affiliated or controlled companies or joint ventures, including without limitation, CNET (Centre national d'études des télécommunications).

27. "FRAND licensing" means licensing on "fair, reasonable, and non-discriminatory terms and conditions" as those terms are used in the ETSI Intellectual Rights Policy contained in Annex 6 of the ETSI Rules of Procedure.

28. "GPRS" means GSM Packet Radio Services.

29. "GSM" means Global System for Mobile communications.

30. "Hughes" means Hughes Aircraft Company and includes, without limitation, each of its predecessors, present or former parents, subsidiaries, affiliated or controlled companies or joint ventures, including without limitation, Hughes Electronics Corporation, Hughes Network Systems, General Motors Company, and DirecTV Group.

31. "Identify," when referring to a person, means to give, to the extent known, the person's full name, present or last known address and when referring to a natural person, additionally, the present or last known place of employment. When referring to documents,

"identify" means to give, to the extent known, the (i) type of document, (ii) general subject matter; (iii) date of the document, (iv) author(s), addressee(s), and recipient(s).

32. "IEEE" means the Institute of Electrical and Electronics Engineers and the Institute of Electrical or Electronics Engineers Standards Association (IEEE-SA).

33. "IPR" means intellectual property rights, including patents and patent applications.

34. "IS-54" means EIA/TIA Interim Standard – Cellular System Dual-Mode Mobile Station-Base Station Compatibility Standard IS-54.

35. "IS-95A" means EIA/TIA Mobile Station-Base Station Compatibility Standard for Dual Mode Wideband Spread Spectrum Cellular System Standard IS-95A.

36. "Mercury" means Mercury Communications and includes, without limitation, each of its predecessors, present or former parents, subsidiaries, affiliated or controlled companies or joint ventures, including without limitation, Mercury One2One.

37. "Motorola" means Motorola, Inc. and all of its predecessors, successors, corporate parents, direct or indirect subsidiaries, divisions, affiliated Entities, officers, directors, employees, consultants, agents, representatives, servants, and all other Persons acting on its behalf.

38. "NEC" means NEC Corporation and includes, without limitation, each of its predecessors, present or former parents, subsidiaries, affiliated or controlled companies or joint ventures, including without limitation, Nippon Electric Company, Limited.

39. "Nokia" means plaintiff Nokia Corporation and includes, without limitation, each of its predecessors, present or former parents, subsidiaries, divisions, affiliated or controlled companies or joint ventures, its respective current or former directors, officers, employees,

agents, attorneys, accountants and any other person who acted or purported to act on their or any of their behalf.

40. "OKI" means Oki Electric Industry Co., Ltd. and includes, without limitation, each of its predecessors, present or former parents, subsidiaries, affiliated or controlled companies or joint ventures.

41. "Omnipoint" means Omnipoint Communications, Inc. and includes, without limitation, each of its predecessors, present or former parents, subsidiaries, affiliated or controlled companies or joint ventures, including without limitation, VoiceStream Wireless.

42. "Patents" means the '135 Patent, the '178 Patent, the '465 Patent, the '548 Patent, the '651 Patent, the '672 Patent, and/or the '904 Patent, and/or any foreign counterparts.

43. "Person" means any natural person, legal entity, governmental entity, or business entity, including without limitation any corporation, partnership, unincorporated association, joint venture, sole proprietorship, or any and/or all other organizations or groups of individuals together with the employees, agents, consultants and attorneys thereof.

44. "PCS SSO" means any standard setting organization concerned with PCS 1900, which includes, without limitation, Committee T1, ATIS, TIA, EIA, or ANSI.

45. "Qualcomm" means Qualcomm Inc. and all of its predecessors, successors, corporate parents, direct or indirect subsidiaries, divisions, affiliated Entities, officers, directors, employees, consultants, agents, representatives, servants, and all other Persons acting on its behalf.

46. "RAND licensing" means licensing on "reasonable terms and conditions that are demonstrably free of unfair discrimination" as those terms are used in the IEEE Standards Association Standards Board By-Laws, Operations Manual, and Letter of Assurance Form.

47. “Related Patents” means all patents and patent applications (whether rejected, abandoned, or pending) in any country of the world (a) to which the ‘135 Patent, the ‘178 Patent, the ‘465 Patent, the ‘548 Patent, the ‘651 Patent, the ‘672 Patent, and/or the ‘904 Patent, or their corresponding patent applications directly or indirectly claims priority or (b) that, directly or indirectly, claim priority to the ‘135 Patent, the ‘178 Patent, the ‘465 Patent, the ‘548 Patent, the ‘651 Patent, the ‘672 Patent, and/or the ‘904 Patent, or their corresponding patent applications.

48. “Relating to” means, without limitation, concerning, alluding to, referring to, constituting, describing, discussing, evidencing, or regarding.

49. “Samsung” means Samsung Electronics and all of its predecessors, successors, corporate parents, direct or indirect subsidiaries, divisions, affiliated Entities, officers, directors, employees, consultants, agents, representatives, servants, and all other Persons acting on its behalf.

50. “Siemens” means Siemens AG and all of its predecessors, successors, corporate parents, direct or indirect subsidiaries, divisions, affiliated Entities, officers, directors, employees, consultants, agents, representatives, servants, and all other Persons acting on its behalf.

51. “Standards Setting Organization” or “SSO” means an organization that adopts standards governing an industry or technological field, and includes without limitation ETSI, 3GPP, and IEEE.

52. "TeleDenmark" means Tele-Denmark Communications (a.k.a. TDC A/S) and includes, without limitation, each of its predecessors, present or former parents, subsidiaries, affiliated or controlled companies or joint ventures, including without limitation, TDC Solutions, TDC Mobile International, and Sunrise Communications AG.

53. "Texas Instruments" means Texas Instruments Inc. (a.k.a. TI) and includes, without limitation, each of its predecessors, present or former parents, subsidiaries, affiliated or controlled companies or joint ventures.

54. "This Litigation" means and refers to the above-referenced action, entitled *Nokia Corporation v. Apple Inc., et al.*, C.A. 09-791-GMS.

55. "TIA" means Telecommunications Industry Association.

56. "UMTS" means Universal Mobile Telecommunications System.

57. A "Wireless Standard" means each of the following standards: (i) the following ETSI and 3GPP standards: (1) GSM; (2) GPRS; (3) EDGE; and (4) UMTS; and (ii) the following IEEE standards: (1) 802.11; (2) 802.11a; (3) 802.11b; (4) 802.11g; and (5) 802.11n.

58. "You," "Your," or "Your Company" refers to Nortel Networks, Inc. and includes, without limitation, its predecessors, present or former parents, subsidiaries, affiliated or controlled companies or joint ventures, their respective current or former directors, officers, employees, agents, attorneys, accountants and any other person who acted on or purported to act on their or any of their behalf, including without limitation Nortel Networks Corporation and Nortel Networks Limited.

59. The use of the singular form of any word includes the plural, and the use of the plural form of any word includes the singular.

INSTRUCTIONS

The following instructions are applicable herein:

1. Produce all responsive documents and things in your possession, custody, or control.

2. Produce all documents and things requested in the same file or manner in which they are kept in the usual course of business.

3. Provide the following information for any responsive document or thing withheld from production on the grounds that it is protected from disclosure by the attorney-client privilege, the work product doctrine, or any other relevant privilege:

   a. The author of the document;

   b. The person(s) for whom the document was prepared, to whom it was sent, or who received copies;

   c. The date of the document;

   d. The subject matter of the document;

   e. The type of document (e.g., letter, memorandum, note, report, etc.)

   f. The number of pages and attachments; and

   g. The nature and the basis for the claim of privilege.

4. This subpoena includes documents that exist in electronic form (including electronic mail, back-up tapes, magnetic tapes, and diskettes).

5. More than one paragraph of this request may ask for the same documents. The presence of such duplication is not to be interpreted to narrow or limit the normal interpretation placed upon each individual request. Where a writing is requested in more than one numbered paragraph, only one copy of it need be produced.

6. If you object to a request, or any part of a request, produce all documents to which your objection does not apply.

7. In the event that multiple copies of a document exist, produce every copy on which appear any notations or marking of any sort not appearing on any other copy.

8. If you are aware of a document or thing, or group of documents or things, that once existed but has been destroyed or discarded since May 1995, you are requested to state the type of document or thing or group of documents or things, the date it was created, the date it was destroyed or discarded, and the identity of the persons having knowledge of the contents of the document or thing, or group of documents and things.

9. A copy of the Protective Order entered in this case is attached.

DOCUMENT REQUESTS

Document Request No. 1

All agreements, including any exhibits and amendments thereto, in which Your Company licensed or proposed to license to Nokia or any other third party any IPR that Your Company believes or believed is or may be Essential to any Wireless Standard.

Document Request No. 2

All agreements, including any exhibits and amendments thereto, in which Nokia or any other third party licensed or proposed to license to Your Company any IPR that Nokia or the third party represents or represented to ETSI, 3GPP, IEEE, or to Your Company is or may be Essential to any Wireless Standard.

Document Request No. 3

All documents concerning any communication between Your Company and Nokia concerning the licensing of any IPR that Your Company believes is or may be Essential to any Wireless Standard, or that Nokia represented to ETSI, 3GPP, IEEE, or to Your Company is or may be Essential to any Wireless Standard. This includes, without limitation, any draft agreements exchanged between the companies, any communications with Nokia concerning the confidentiality of licensing terms, and any documents (including but not limited to correspondence) exchanged between Your Company and Nokia during the period of negotiation of any consummated license agreements between the companies that relate to the licensing of any IPR.

Document Request No. 4

All documents prepared by Your Company concerning the value of the IPR that Nokia represented to Your Company or to ETSI, 3GPP, or IEEE is or may be Essential to any Wireless Standard.

Document Request No. 5

All documents concerning or reflecting any statement by Nokia or Your Company concerning the meaning of the terms "RAND licensing" or "FRAND licensing."

Document Request No. 6

Documents sufficient to describe the relative advantages and/or disadvantages of the following proposals made to ETSI in 1997 and 1998 for the UMTS standard, as described in the attached Exhibit A:

a. the proposal for Wideband CDMA (Code Division Multiple Access), also known as the "Alpha" proposal;

b. the proposal for OFDMA (Orthogonal Frequency Division Multiple Access), also known as the "Beta" proposal;

c. the proposal for Wideband TDMA (Time Division Multiple Access), also known as the "Gamma" proposal;

d. the proposal for Wideband TDMA/CDMA, also known as the "Delta" proposal; and

e. the proposal for ODMA (Opportunity Driven Multiple Access), also known as the "Epsilon" proposal.

Document Request No. 7

Documents sufficient to describe disputes or disagreements between any ETSI member and ETSI about complying with, or the meaning of, ETSI's IPR policy, including without limitation disputes by Motorola, Nokia, Ericsson, and/or Qualcomm with ETSI about complying with, or the meaning of, ETSI's IPR policy.

Document Request No. 8

All documents relating to Your Company's participation in the following ETSI and 3GPP meetings:

a. ETSI SMG2 WPB meeting number 12 in Aalborg, Denmark from January 11-13, 2000, including without limitation documents relating to the proposals noted in section 7.2.6.11 of the meeting report attached hereto as Exhibit B; and

b. 3GPP TS -RAN meeting number 11 in Palm Springs, California from March 13-16, 2001, including without limitation documents relating to the proposals noted in Section 5.2.2 of the meeting report attached hereto as Exhibit C.

Document Request No. 9

All documents relating to any proposal, submission, or communication to, from, and/or with any SSO or SSO member that concerns sending packet data over a wireless network, including without limitation through fast-call establishment, GPRS reserved resources, and/or the GPRS attach function and Packet Data Protocol ("PDP") context function ultimately standardized in 3GPP TS 23.060, 3GPP TS 43.064, or IEEE Std. 802.11-2007 § 5.

Document Request No. 10

All documents relating to the conception, creation, development, testing, analysis, implementation, negotiation, standardization, or selection of standards for sending packet data over a wireless network, including without limitation through fast-call establishment, GPRS reserved resources, and/or the GPRS attach function and PDP context function for any Wireless Standard, including, without limitation, all documents constituting or concerning:

a. Your Company's participation therein;

b. Nokia's participation therein;

c. any draft or version of any specification ultimately standardized as 3GPP TS 23.060, and any follow-on draft or version of TS 23.060;

d. any draft or version of any specification ultimately standardized as GSM 03.60, 3GPP TS 43.064, and/or IEEE Std. 802.11-2007 § 5, and/or any follow-on draft or version of these specifications;

e. proposals and submissions from any party to any SSO or SSO member regarding sending packet data over a wireless network, including without limitation through fast-call establishment, GPRS reserved resources, and/or the GPRS attach function and PDP context functions;

f. selection of features and technologies for sending packet data over a wireless network, including without limitation through fast-call establishment, GPRS reserved resources, and/or the GPRS attach function and PDP context functions;

g. any feature or technology considered, proposed, analyzed, or tested for inclusion in the sending packet data over a wireless network standard, including

without limitation the features or technologies ultimately standardized in 3GPP TS 23.060 §§ 14, 6.5, 9.2; 3GPP TS 43.064 § 6.6.4.7; or IEEE Std. 802.11-2007 § 5;

h. all of Your Company's internal documentation, work, research, analysis, and testing concerning sending packet data over a wireless network, including without limitation through fast-call establishment, GPRS reserved resources, and/or the GPRS attach function and PDP context functions; and

i. communications or submissions to, from, and/or within any SSO concerning sending packet data over a wireless network, including without limitation through fast-call establishment, GPRS reserved resources, and/or the GPRS attach function and PDP context functions.

Document Request No. 11

All documents relating to the proposal for reorganization of GSM 03.60 (Stage 2) by DeTeMobil for the GSM standard, as described in Exhibits D and/or E.

Document Request No. 12

All documents, written or published prior to September 6, 1993, concerning sending packet data over a wireless network, including without limitation through fast-call establishment, GPRS reserved resources, and/or the GPRS attach function and PDP context function.

Document Request No. 13

All documents concerning any proposal, submission, or communication to, from, and/or with any SSO or SSO member that relates to the structure for radio blocks transmitted over a wireless network, including without limitation the RLC/MAC Block structure ultimately

standardized in 3GPP TS 45.001, 3GPP TS 44.060, 3GPP TS 43.060, or IEEE Std. 802.11a-1999 § 17.

Document Request No. 14

All documents concerning the conception, creation, development, testing, analysis, implementation, negotiation, standardization, or selection of standards concerning the structure for radio blocks transmitted over a wireless network, including without limitation the RLC/MAC Block structure for any Wireless Standard, including, without limitation, all documents constituting or concerning:

a. Your Company's participation therein;

b. Nokia's participation therein;

c. any draft or version of any specification ultimately standardized as 3GPP TS 44.060, and any follow-on draft or version of TS 44.060;

d. any draft or version of any specification ultimately standardized as GSM 04.60, 3GPP TS 45.001, 3GPP TS 43.060, and/or IEEE Std. 802.11a-1999 § 17, and/or any follow-on draft or version of these specifications;

e. proposals and submissions from any party to any SSO or SSO member regarding the structure for radio blocks transmitted over a wireless network, including without limitation the RLC/MAC Block structure;

f. selection of features and technologies for the structure for radio blocks transmitted over a wireless network, including without limitation the RLC/MAC Block structure;

g. any feature or technology considered, proposed, analyzed, or tested for inclusion in the structure for radio blocks transmitted over a wireless network,

including without limitation the RLC/MAC Block structure standard, including without limitation the features or technologies ultimately standardized in 3GPP TS 44.060 §§ 3.1, 4, 10; 3GPP TS 43.064 § 6.5; or IEEE Std. 802.11a-1999 § 17;

h. all of Your Company's internal documentation, work, research, analysis, and testing concerning the structure for radio blocks transmitted over a wireless network, including without limitation the RLC/MAC Block structure; and

i. communications or submissions to, from, and/or within any SSO concerning the structure for radio blocks transmitted over a wireless network, including without limitation the RLC/MAC Block structure.

Document Request No. 15

All documents, written or published prior to August 18, 1997, concerning the structure for radio blocks transmitted over a wireless network, including without limitation the RLC/MAC Block structure.

Document Request No. 16

All documents concerning ETSI Document SMG2/3 GPRS 99/96 (August 1996), titled "Description of RLC Based on the Assignment Principle."

Document Request No. 17

All documents concerning the conception, creation, development, testing, analysis, implementation, negotiation, standardization, or selection of Enhanced Full Rate ("EFR") speech coding/decoding standards or EFR channel coding/decoding standards for GSM, ETSI, 3GPP, or PCS 1900 including, without limitation, all documents constituting or concerning (as used below, "EFR" refers to both EFR speech coding/decoding and EFR channel coding/decoding functions):

a. Your Company's participation therein;

b. Nokia's participation therein;

c. an EFR codec;

d. the so-called "US-1" codec;

e. the so-called "NPAG" codec;

f. the use of pitch gain, pitch lag, codebook index, or codebook gain parameters for EFR;

g. any features to enhance the pitch in the encoder or decoder;

h. any draft or version of any specification ultimately standardized as TS 05.03, and any follow-on draft or version of TS 05.03;

i. any draft or version of any specification ultimately standardized as TS 06.60, and any follow-on draft or version of TS 06.60;

j. any draft or version of any specification ultimately standardized as TS 06.90, and any follow-on draft or version of TS 06.90 including, without limitation, 26.090;

k. any draft or version of any specification ultimately standardized as part of PCS 1900 and any follow-on draft or version including, without limitation, any draft or version of ANSI J-STD-007;

l. proposals and submissions from any party to GSM, ETSI, 3GPP, and/or any PCS SSO regarding EFR;

m. selection of features and technologies for EFR;

n. any feature or technology considered, proposed, analyzed, or tested for inclusion in the EFR standard;

o. proposed or candidate EFR codecs, including any testing or analysis thereof;

p. proposed or candidate EFR codecs submitted by Your Company, Nokia, Ericsson, Mercury, Motorola, AT&T, France Telecom, British Telecom, TeleDenmark, Texas Instruments, Bellcore, Hughes, Omnipoint, OKI, Qualcomm, Alcatel-Lucent, or NEC;

q. all of Your Company's internal documentation, work, research, analysis, and testing concerning EFR; and

r. communications or submissions to, from, and/or within GSM, ETSI, 3GPP, and/or any PCS SSO concerning EFR.

Document Request No. 18

All documents created on or before December 21, 2001 concerning cell measurement reporting, acknowledgments, and/or polling codes, in a cellular network.

Document Request No. 19

All documents created on or before December 21, 2001 that relate to a request by a cellular network for a mobile station (including, for example, a cell phone) to take measurements of surrounding cell conditions (including, for example, signal levels (power) between the receiving and transmitting stations, quality of the signal, distance between the stations, amount of transmitted data, etc.).

Document Request No. 20

All documents created on or before December 21, 2001 that relate to a mobile station that takes measurements of surrounding cell conditions in a cellular network.

Document Request No. 21

All documents created on or before December 21, 2001 that relate to the preparation of a report or other results of surrounding cell conditions measured by a mobile station in a cellular network.

Document Request No. 22

All documents concerning the extended measurement report feature defined by at least section 8.4.6 of 3GPP TS 05.08 standard and at least sections 3.4.1.3, 9.1.51, and 10.5.2.46 of 3GPP TS 4.18.

Document Request No. 23

All documents concerning the enhanced measurement report feature defined by at least section 8.4.8 of 3GPP TS 45.008.

Document Request No. 24

All documents concerning the pilot measurements feature of IS-95A, as defined by at least sections 7.6.6.2.2.4, 7.7.3.3.2.5, and 6.7.2.3.2.6.

Document Request No. 25

All documents concerning the channel quality measurements and reporting feature of IS-54, as defined by at least sections 2.4.5.2.1, 2.4.5.2.3, 2.5.4.2.1, 2.7.3.1.3.2.3-4, and 3.7.3.1.3.2.2.

Document Request No. 26

All documents created on or before December 21, 2001 that relate to a request by a cellular network for a mobile station (including, for example, a cell phone) to respond with an acknowledgment, non-acknowledgment, and/or measurement report, including, without limitation, requests contained in the header of a network message.

Document Request No. 27

All documents created on or before December 21, 2001 that relate to a mobile station that responds to a cellular network request for the mobile station to send an acknowledgment, non-acknowledgment, and/or measurement report to the cellular network.

Document Request No. 28

All documents concerning the polling for packet downlink Ack/Nack and network change order procedure features of sections 8.1.2.2 and 8.3 of 3GPP TS 04.60.

Document Request No. 29

All documents concerning the ES/P polling feature of sections 9.1.8.2.1.1 and 10.4.4 of 3GPP TS 44.060.

Document Request No. 30

All documents concerning sections 2.4.5.1, 2.4.5.2.1, and 2.7.3.1.3.2.3 of IS-54.

Document Request No. 31

All documents concerning sections 6.4.1, 6.6.6.2.2, 7.6.6.2.2.4, 6.7.1.3.2.2, and Table 7.7.4-1 of IS-95A.

Document Request No. 32

All documents dated before December 21, 2001, concerning the conception, creation, development, testing, analysis, implementation, negotiation, standardization, or selection of standards, including without limitation GSM, GPRS, and/or EDGE, within any SSO concerning measurement reporting and/or polling activity including, without limitation, all documents constituting or concerning:

a. Your Company's participation therein;

b. Nokia's participation therein;

c. extended measurement reporting;

d. enhanced measurement reporting;

e. supplementary/polling (S/P) bits;

f. extended supplementary (ES/P) bits;

g. any features that allow a mobile station (including, for example, a cell phone) to prepare a measurement report without including identification parameters of the cells;

h. any features that allow a cellular network to request a mobile station (including, for example, a cell phone) to transmit a previously-prepared measurement report;

i. any draft or version of any specification ultimately standardized as TS 04.08, and any follow-on draft or version of TS 04.08, including without limitation, 24.008;

j. any draft or version of any specification ultimately standardized as TS 04.18, and any follow-on draft or version of TS 04.18, including without limitation, 44.018;

k. any draft or version of any specification ultimately standardized as TS 04.60, and any follow-on draft or version of TS 04.60, including without limitation, 44.060;

l. any draft or version of any specification ultimately standardized as TS 05.08, and any follow-on draft or version of TS 05.08, including without limitation, 45.008;

m. proposals and submissions from any party to any SSO or SSO member regarding measurement reporting and/or polling activity;

n. proposed or candidate specifications or standards regarding measurement reporting and/or polling activity submitted by any third party including without limitation Motorola, Ericsson, Alcatel-Lucent, Vodafone, Qualcomm, Mitsubishi, France Telecom, or Siemens;

o. all of Your Company's internal documentation, work, research, analysis, and testing concerning measurement reporting and/or polling activity; and

p. all of Your Company's IPR declarations concerning measurement reporting and/or polling activity, including for example, documents concerning what patents to declare Essential (or not declare Essential).

Document Request No. 33

Any documents concerning this Litigation, the Patents, or Related Patents. This includes without limitation and documents constituting or concerning communications between You and Alston & Bird LLP; Morris, Nichols, Arsht & Tunnell LLP; or any other counsel for Nokia relating to this Litigation or relating to the Patents.

MATTERS REGARDING WHICH EXAMINATION IS REQUESTED

Topic No 1

All agreements, including any exhibits and amendments thereto, in which Your Company licensed or proposed to license to Nokia or any other third party any IPR that Your Company believes or believed is or may be Essential to any Wireless Standard.

Topic No 2

All agreements, including any exhibits and amendments thereto, in which Nokia or any other third party licensed or proposed to license to Your Company any IPR that Nokia or the third party represents or represented to ETSI, 3GPP, IEEE, or to Your Company is or may be Essential to any Wireless Standard.

Topic No 3

Any communication between Your Company and Nokia concerning the licensing of any IPR that Your Company believes is or may be Essential to any Wireless Standard, or that Nokia represented to ETSI, 3GPP, IEEE, or to Your Company is or may be Essential to any Wireless Standard. This includes, without limitation, any draft agreements exchanged between the companies, any communications with Nokia concerning the confidentiality of licensing terms, and any documents (including but not limited to correspondence) exchanged between Your Company and Nokia during the period of negotiation of any consummated license agreements between the companies that relate to the licensing of any IPR.

Topic No 4

The value of the IPR that Nokia represented to Your Company or to ETSI, 3GPP, or IEEE is or may be Essential to any Wireless Standard.

Topic No 5

Any statement by Nokia or Your Company concerning the meaning of the terms “RAND licensing” or “FRAND licensing.”

Topic No 6

Disputes or disagreements between any ETSI member and ETSI about complying with, or the meaning of, ETSI's IPR policy, including without limitation disputes by Motorola, Nokia, Ericsson, and/or Qualcomm with ETSI about complying with, or the meaning of, ETSI's IPR policy.

Topic No 7

Knowledge and communications concerning this Litigation, the Patents, or Related Patents. This includes without limitation any communications between You and Alston & Bird LLP; Morris, Nichols, Arsht & Tunnell LLP; or any other counsel for Nokia concerning this Litigation, the Patents, or Related Patents.

Topic No 8

The conception, creation, development, testing, analysis, implementation, negotiation, standardization, or selection of EFR speech coding/decoding standards or EFR channel coding/decoding standards for PCS 1900, GSM, ETSI, and/or 3GPP. This includes, without limitation, technologies considered for the standard but not adopted, and any alternative technologies known to You.

Topic No 9

Facts and circumstances concerning Your Company's conception, creation, development, testing, analysis, implementation, design, and understanding of technology related to measurement reporting, acknowledgments, and polling codes. This includes without limitation extended measurement reporting, enhanced measurement reporting, supplementary/polling (S/P) bits, and extended supplementary/polling (ES/P).

Topic No 10

Facts and circumstances concerning the adoption of any standard or technical specification related to measurement reporting, acknowledgments and polling codes, including

without limitation GSM and 3GPP TSs 04.08 and 24.008; 04.18 and 44.018; 04.60 and 44.060; and 05.08 and 45.008; as well as any standard or technical specification that is a predecessor or successor. This also includes without limitation submissions to, proposals to, communications with, presentations to, or participation in any SSO or meeting by any Person, including without limitation by You. This also includes without limitation any proposed or candidate technologies that were proposed but not adopted.

Topic No 11

The search for, collection of, and production of documents responsive to the subpoena.

Topic No 12

The authenticity of the documents produced in response to the subpoena.

Exhibit A

ETSI SMG **ETSI/SMG (97) 5 Part A**
Meeting n°24
Madrid, 15th - 19th December, 1997

(Part A)

Executive Summary SMG #24

The SMG #24 Plenary Meeting was held in Madrid, Spain. It was hosted by Telefónica. SMG # 24 was attended by 270 delegates, including delegations from ANSI T1P1, RITT (China), ARIB (Japan), chairs of GSM MoU and UMTS Forum as well as 5 ETSI Board members.

1 UMTS AND IMT 2000 MATTERS

SMG2 presented their findings regarding four UTRA (UMTS terrestrial radio access) concepts. SMG 2 reported that the essential requirements had been fulfilled by all concepts. SMG 2 was not able to reach a consensus and asked SMG to take a decision on one concept that should be used by SMG 2 for the refinement phase until mid 1998.

Regarding IPR the SMG Chairman reminded the ETSI members to fulfil their membership duties. ETSI's legal adviser reported that she had received some IPR statements, but no information about essential IPR.

After an intensive and comprehensive discussion a vote for indication of intend was held. This resulted in 58.45 % of the weighted votes for W-CDMA and 41.55 % for TD-CDMA and no votes for the two other concepts. A decision requires 71 %. A vote will be held in SMG#24bis (28-29 January 1998).

Regarding **UMTS services** the standard on services principles was approved.

Regarding **UMTS network aspects** the definition of the GSM-UMTS core network pivoting GSM core network evolution was agreed.

Several **ITU contributions** to TG8/1 and SG11 were approved and the ITU work program was updated.

2 GSM MATTERS

Several specifications of **Release '97** were approved, e.g.

- Support of mobile number portability (stage 1)
- Support of private numbering plan (stage 1)
- GPRS: all radio related specifications and some network related specifications

The rest of Release '97 is planned for approval in SMG # 25.

287 Change Requests were approved. The work plan for harmonisation between T1P1's GSM specifications were approved. The AMR performance requirements were agreed in principle.

3 SMG MATTERS

SMG agreed in principle that a more efficient global co-operation is needed for future GSM and UMTS standardisation. It was felt necessary to enable the full participation of relevant parties outside ETSI and to avoid complex co-operation structures between different standardisation bodies. The SMG Chairman was charged to explore with all relevant parties, whether one joint working structure avoiding parallel work and overhead co-ordination could be implemented within the framework of an ETSI Partnership Project.

ETSI SMG **ETSI/SMG (97) 5**
Meeting n°24
Madrid, 15th - 19th December, 1997

Status: Approved

(Part B)

CONTENTS

Fred Hillebrand, Chairman of SMG, opened the meeting and thanked Telefónica for hosting the meeting.

Francisco Ruiz-Vinuesa, Network General Director of Telefónica Móviles, addressed the meeting and welcomed the delegates on behalf of the hosts.

Fred Hillebrand welcomed the delegation from ARIB (the Japanese Standards organisation responsible for the IMT-2000 radio access), participating for the first time at an SMG plenary, and its Head of delegation Akio Sasaki. He also welcomed Mel Woinsky, T1P1 Chairman; Thomas Beijer, UMTS Forum Chairman; Dr. Adriana Nugter, GSM-MoU Chair; members of the ETSI Board: Peter Koch, Kiritkumar Lathia, Pierre Perrichon, Peter Bumann, Gerry Lawrence; the delegations from North America, China, Hong Kong, Israel and Australia; the large number of delegates participating for the first time in an SMG meeting, and - last but not least - the "semi-permanent" SMG delegates.

0 MEETING REPORT OF SMG#23

The SMG#23 report had been approved by correspondence. SMG#24 plenary noted that approval.

1 TARGETS OF SMG #24, SHORT CHAIRMAN'S REPORT

Fred Hillebrand gave a short Chairman's report (Tdoc SMG 1021/97).

Main activities:

- Co-ordination of UMTS and IMT-2000 matters
- Presentations to ETSI GA, UMTS Forum GA and some major conferences
- Negotiations with ETSI management on decisions relevant for SMG

Other points:

- The obligations of ETSI members concerning IPR declarations were not fulfilled sufficiently by all members.

The **following targets** for SMG#24 were proposed and approved by SMG#24:

- Approval and review of GSM release '97
- UTRA milestone M2: selection of one concept
  - consensus process in SMG#24
  - voting if needed in SMG#24bis
- UMTS services: Agreement on the concept
- UMTS network aspects: the way forward
- Clarification of the IMT-2000 family concept by review and approval of the ITU contributions for the January/February '98 TG8/1 and SG11 meetings.

2 ADOPTION OF AGENDA

The agenda in Tdoc SMG 1020/97 was approved with the addition of Agenda Item 5.7: *T1P1 work items* and a clarification that the decision on an SMG#24bis meeting would be made before Friday, 19th December, lunch. The agenda of side events in Tdoc SMG 1046/97 was also approved.

3 SMG MATTERS

3.1 ELECTION OF SMG OFFICIALS

For the election of the SMG Chair, Fred Hillebrand passed the chair to the SMG Vice Chairman Alan Cox. For the position of SMG chair, the only candidate was Fred Hillebrand. SMG#24 approved unanimously to propose to the General Assembly a nomination of Fred Hillebrand as SMG Chairman for a further period.

For the position of SMG3 chair, the only candidate was Michel Mouly. He was elected by SMG#24 for a further period.

For the position of SMG7 chair, the only candidate was Rémi Thomas. He was elected by SMG#24 for a further period.

For the position of SMG vice chair, the only candidate was Gunnar Sandegren. He was elected by SMG#24 for a further period.

3.2 PT SMG

Ansgar Bergmann presented Tdoc SMG 1038/97, ***PT SMG status report to SMG#24***, source PT SMG. It was approved.

New problems within ETSI have been arising every 1-2 months, the latest ones: New travel rules August 97, Proposal to reduce the payment for STF contracts, Board decision to limit experts' contracts to 18 months.

Pierre Perrichon commented that the PT SMG status report should in future be delivered in the form as used before SMG#22, that is as a Word document including all necessary information as annexes rather than referring to other temporary documents. This was agreed.

Liaison activities of PT SMG with T1P1: it was clarified that liaison on administrative matters is meant.

AP Antun Samukic To provide a Tdoc about the information exchange between Korean TTA and ETSI/PT SMG (to become Tdoc SMG 1164/97).

For the question of in-time delivery of new versions of specifications by PT SMG, raised in a letter from SMG2 to the PT SMG leader in Annex I of Tdoc SMG 1017/97, SMG#24 noted the SMG2 priority of in-time delivery of new versions of specifications

by PT SMG against support of SMG2 (subgroup) meetings and agreed that this is mainly a decision of each STC.

CD-ROMs: PT SMG and ETSI secretariat produce after each SMG plenary a CD-ROM with the plenary documentation. A majority of delegates asked for a CD-ROM #24 without waiting for the material of SMG#24bis. On the general question of trade-off between timely delivery of the CD-ROM and amount of newest specifications etc., SMG#24 didn't make any further conclusions.

Around 30 delegates announced their interest in obtaining the earlier SMG plenaries documents in electronic form.

SMG#24 discussed shortly whether to change the name "PT SMG". It was clarified that the new names STF12, STF83 etc. decided by ETSI affect the budgetary units of STFs belonging to PT SMG.

AP Ansgar Bergmann: To make a proposal whether to change the name PT SMG and if yes, to propose a new name for PT SMG.

Voluntary Scheme for PT SMG funding: Per Björndahl presented Tdoc SMG 1092/97, *Report to SMG#24 from STF SMG Funding Task Force meeting #1*. The group

- reviewed the PT SMG activities,
- discussed means of raising funds evaluated the business plan for resources 1999-2000 and issues of a legal entity
- and established an action plan until SMG#26.

Dissemination of information as a task for PT SMG: It was the common view that when resources of PT SMG are restricted, this task should have a lower priority. It was pointed out that this approach had already been used hitherto.

3.3 ORGANISATION OF GSM AND UMTS STANDARDISATION

Hans Hauser presented Tdoc SMG 1062/97, *Future Organisation for GSM and UMTS Standardisation*, source T-Mobil, Mannesmann Mobilfunk, E-Plus Mobilfunk, aiming at a smooth and efficient standardisation process for the evolution of GSM and towards UMTS. The GSM community is now a global community of operators and manufacturers but has experienced difficulties to open up for a wider participation in ETSI/SMG. Organisations from outside Europe still cannot become full ETSI members. Even voting rights for associate members in Technical Bodies were not endorsed by ETSI's General Assembly in November 97. Present working methods with ANSI T1P1 on common GSM specifications are proven as best possible solution for co-operation with other standard bodies, but they are very complex. This situation calls for a closer and more efficient overall co-operation. The GSM MoU Association and especially the APIG (Asian Pacific Interest Group) of GSM MoU have expressed their desire to participate fully in GSM work and in Third Generation standardisation and to ensure roaming with Japan.

For these reasons, these three companies proposed the establishment of SMG as the joint working structure among the interested bodies to produce GSM and UMTS

standards for ETSI (as an ETSI partnership project) and for the other interested bodies, avoiding parallel work and overhead co-ordination; current budget allocations for ETSI/SMG to be considered as an asset for this possible joint working structure; the SMG Chairman to carry out an exploratory mission in this sense.

Comments in the discussion:

- Pietro Porzio-Giusto indicated support of the paper and asked for some results before a possible SMG#24bis.
- Neil Lilly indicated full support of the effort from GSM MoU.
- Gary Jones indicated support of the proposal from the American GSM community and their readiness for participating in the efforts.
- Peter Bumann (member of the ETSI Board) stated that the EPP concept was invented with SMG in mind.
- Tony Wiener indicated support for the proposal, but questioned possible additional costs. Armin Toepfer responded that as the number of committees would be reduced, hence costs would go down.
- Per Björndahl commented the review task force (see section 3.2) having had this idea in mind as a way forward.
- Patrick Blanc questioned the role of such an organisation as compared to ITU. Armin Toepfer explained that the work would be complementary, ITU defining the framework, a group like SMG doing the detailed technical development, evolution and maintenance of competitive standards.
- Albert Dorgelo asked to add TIA to the contacts mentioned in section 3.
- Neil Lilly commented that the scheme would allow improved ways to contribute to ITU if prepared in SMG with such a new basis.
- Neil Lilly commented that voting/balloting rights of Standards Organisations using the SMG specifications should not to be impacted.
- Paola Tonelli proposed to put the emphasis on UMTS. Gary Jones confirmed that the American community has in the first line GSM in mind. He expressed the support of GSM NA of the fact that the proposal not only includes UMTS but also GSM.
- Alistair Urie explained that similar rules as the ETSI Partnership Project rules would probably be applicable for other interested standards organisations.
- Heikki Ahava indicated work in the US very often being done in Fora outside the standardisation groups and brought to the standardisation groups in a rather mature state, so to include such fora in the preparation.
- Rémi Thomas commented that practical steps, how to approve CRs etc, require experience and time, and expressed the expectation that the scheme would not yet be working within three months.
- Gunnar Sandegren explained that the idea would be one body leading the specification activities on GSM and UMTS; preparation of specifications should be done so that the adopting in the regional standards organisations would be a formality. He saw the proposal as a necessary corrective factor for the mismatch between spreading of the GSM standard and influence on its development.

- Alan Cox: For information: There wasn't a majority against extending technical voting to associate members. The non-decision of GA should not be seen as the major objective or reason for the proposal.
- Gerry Lawrence and Pierre Perrichon, presenting a view from the ETSI Board: Proposal fits well to the EPP concept. Pierre Perrichon remembered that there is also the ISDN evolution UMTS Core Network as an ETSI project outside of SMG.
- Gunnar Sandegren: The project should take care for recognising convergence parts, but should not be responsible itself for that convergence.

Decisions on the matter:

- It was agreed by SMG#24 as important that both GSM and UMTS are included in the proposal.
- Time plan: It was agreed Fred Hillebrand to give a status report into SMG#24bis (if held), and to propose a concept for SMG#25.
- SMG#24 endorsed the paper in principle.

Neil Lilly commented that the time plan would fit well for reporting to the next GSM MoU.

Later in the meeting, Hans Hauser presented a revision of Tdoc SMG 1062/97 in Tdoc SMG 1142/97.

Rémi Thomas and Didier Chauveau argued against stating in section 1 of Tdoc SMG 1142/97 the general rule of equal rights for all participants, this being a decision still to be made.

Peter Bumann and Peter Adams asked to inform all relevant ETSI groupings like ETSAG, Board, GA, the ad hoc group on fixed/mobile convergence and others in order to have a good acceptance for the way ahead.

It was clarified that Albert Dorgelo's request to add TIA was not followed because TIA has no activities in GSM or UMTS. As a consequence, Albert Dorgelo requested the modification (6) below which was accepted by SMG#24.

It was clarified that for the MPTs to be contacted, first priority shall be the Chinese MPT, second priority the Japanese MPT.

Modifications of Tdoc SMG 1142/97:

(1)"The SMG Chairmanshould report to SMG#25 and propose a way forward."

(2)"It is expected that the SMG Chairman will contact"

(3)Heading of section 1 to become "Guidance for exploratory mission".

(4)Section 1: Replace "have to be provided" by "is to be considered".

(5)Insert: "The SMG Chairman will seek support for this mission by the two SMG Vice Chairmen. This team will be supported by the PT SMG leader."

(6)replace "considering 3rd generation work issues" by "UMTS work issues".

With these modifications, Tdoc SMG 1142/97 was approved. The approved version is Tdoc SMG 1154/97 replacing Tdoc SMG 1062/97 and Tdoc SMG 1142/97.

4 UMTS MATTERS

4.1 UTRA

4.1.1 SMG2 status report

Niels Peter Skov Andersen presented the SMG2 status report on the UMTS Terrestrial Radio Access (UTRA) definition process (see Tdoc SMG 1017/97 and Tdoc SMG 893/97). SMG2's detailed work towards that definition was initiated by a workshop on radio access technologies held December 1996. Since then SMG2 have dealt with UMTS Terrestrial Radio Access at several meetings amongst these four SMG2 plenaries, four ad-hoc meetings dedicated to UMTS, a joint SMG2-ARIB workshop, a question and answer session and numerous concept group meetings.

In the first step of the process the procedure and time schedule for the UTRA definition was elaborated by SMG2 and agreed by SMG at SMG#21. Hereafter, the requirements impacting the UMTS Terrestrial Radio Access was collected and the high level requirements for the UMTS Terrestrial Radio Access documented and approved by SMG#22. The high level requirements were further detailed in UMTS 21.01. At the same time UMTS 30.03 describing evaluation criteria for the UTRA definition procedure was elaborated. UMTS 21.01 and UMTS 30.03 were approved by SMG#22. In parallel with the work on these reference documents, SMG2 were collecting technical proposals for radio access technologies for the UMTS Terrestrial Radio Access. These proposals grouped into the following five concepts:

- α-concept based on wideband CDMA (WCDMA)
- β-concept based on OFDMA
- γ-concept based on wideband TDMA (WB-TDMA)
- δ-concept based on TDMA with spreading (WB TDMA/CDMA)
- ε-concept based on ODMA (Opportunity Driven Multiple Access)

This grouping was presented to SMG#22 for approval. Hereafter, SMG2 formed five concept groups to assist in evaluation of the different building blocks suggested. Through the period since SMG#22 detailed evaluation of the proposals have been performed and the different original proposals combined into one single proposal for UMTS Terrestrial Radio Access per concept group. Originally the intention was then to merge the concepts into one single concept for the UMTS Terrestrial Radio Access. Unfortunately, SMG2 have failed to do so.

The concepts have been refined and their performance been evaluated in detail. Link level results and system level results have been discussed within SMG2. Further, SMG2 have checked the different concepts against the high level requirements. In general the concepts can be claimed to fulfil the high level requirements. However, SMG2 remarked

- that the area of private and residential operation and the use of unpaired spectrum are not areas on which the concept groups have placed the highest attention;

- that therefore the issue of UMTS deployment of private and residential operation would require further studies in SMG2 to ensure that the requirements in this area are properly met;
- that the issue of how UMTS can be implemented to enable an operator to make the most effective use of the unpaired spectrum, has not been fully addressed and will require further studies in SMG2;
- *that, in particular it may be necessary to consider modification of any adopted UMTS Terrestrial Radio Access concept to improve these aspects of performance.*

Regarding the results of the evaluation and refinement work performed, SMG2 informed SMG about the following findings and conclusions regarding the epsilon concept (ODMA - Opportunity Driven Multiple Access):

- Investigation of relay systems has been carried out within SMG2 considering the technology called Opportunity Driven Multiple Access – ODMA. The protocols used in ODMA are very similar to those of a packet radio system currently being trialed. System level simulations were carried out in accordance with UMTS 30.03 which showed that wide area high data rate coverage was possible in all environments using a subscriber relay system and that there was potential for increased capacity when used in a cellular hybrid.
- Feasibility studies were conducted to determine the practicality of supporting relaying using the basic WCDMA and WB TDMA/CDMA designs. The conclusion was that both the WCDMA and the WB TDMA/CDMA designs were sufficiently flexible to support relaying with negligible increase to the mobile station complexity or cost. These technologies can therefore offer the flexibility of simple relaying but also provide a suitable platform for advanced relay protocols such as ODMA.
- For the above reasons it was decided that relaying/ODMA should be presented as an enhancement to both WCDMA and WB TDMA/CDMA rather than as a standalone technology. As a result, documentation from the studies of epsilon concept is included as a part of the evaluation reports on the alpha and delta concepts.

Regarding the four other concepts (α, β, γ, δ), Niels Peter Skov Andersen reported further

- that SMG2 have not been able to obtain any further merging;
- moreover that, considering the uncertainty on simulations and the differences in the assumptions made in order to evaluate the performance of the concepts, SMG2 have not be able to conclude that any single one of these concept provides a better solution than the other concepts;
- that therefore, SMG2 request SMG to decide on the basis of which of the concepts α, β, γ, or δ, SMG2 shall continue the work on the UMTS Terrestrial Radio Access.

In order to assist SMG in making the decision SMG2 have prepared the following documentation for each of the concepts:

- A summary of system description for the concept
- A summary of the concept evaluation for the concept

- An evaluation report for the concept

SMG2 could not recommend SMG to make a direct comparison of the performance results for the concepts based directly on the values contained in the evaluation documentation. This was due to the different nature of the concepts, which has lead to differences in the assumptions for the performance evaluation, which lead to differences in the results. Especially regarding guard bands SMG2 highlighted that it is difficult to perform a direct comparison of Minimum Coupling Loss (MCL) based guard band analysis, as, e.g., the likelihood for different scenarios might be different for the different concepts.

SMG2 have not been able to reach a consensus on how the results of the evaluation should be compared, and is therefore unlikely to be able to reach a consensus on the technology for UMTS Terrestrial Radio Access in the foreseeable future. SMG2 therefore recommended to SMG that the best way forward for the elaboration of the UMTS radio interface would be for SMG to make a decision on one concept that should be used by SMG2 in the refinement phase.

Niels Peter Skov Andersen expressed the understanding of SMG2 that by deciding to base the UMTS Terrestrial Radio Access on a given concept, SMG approves the summary of the system description for that concept; that this means that the further refinement of the selected concept is done with reference hereto; that changes in order to improve the concept shall be justified relative to the concept described in the summary system description.

For the detailed reports on the concept groups, see section 4.1.4.

Decisions of SMG#24:

- The epsilon concept, ODMA (Opportunity Driven Multiple Access) is not regarded as a candidate concept group; it is an advanced relay protocol applicable to all concept groups.
- Technical Report UMTS 30.06, *UMTS Terrestrial Radio Access Concept (UTRA) evaluation*, was approved.

For decisions of SMG#24 concerning the further treatment of the UTRA definition in SMG#24bis, see section 6.1.

4.1.2 Voting process in SMG#24

Hélène Lafferre, ETSI legal advisor, presented Tdoc SMG 995/97, *Procedure of vote for indication of intent on UTRA in SMG#24.*

Comments of SMG#24:

Section 0: No comments.

Section 1: It was clarified that the voting at SMG#24 was not a vote for a decision on the matter but rather a vote for indication of members' opinions, Therefore, abstentions were also proposed to be counted.

Section 2: It was clarified that registration for voting at SMG#24 was also possible during the SMG#24 before the voting. The deadline in Tdoc SMG 883/97 for sending the registration form was an administrative measure to have enough registrations processed before SMG#24 but could not restrict rights of members to participate at voting. Peter Donat explained that two members had misinterpreted Tdoc SMG 883/97 as not allowing participation at the voting for members missing the deadline of 11th December, and that they therefore were not present at the meeting.

Heikki Ahava asked to document which delegates registered for voting for which companies. This was agreed by SMG#24, and later in the meeting Ian Doig presented Tdoc SMG 1106/97 the requested information.

Section 3.3: Weighted voting was requested by Vodafone. Adriana Nugter pointed at the lack of symmetry of the ETSI rules where members do a secret vote and associate members have to declare their opinion openly; the SMG Chairman asked delegates from associate members wishing an anonymous declaration of associate members' opinion to contact him; however, no associate member expressed such a request during SMG#24.

Tdoc SMG 995/97 was approved by SMG#24.

For decisions of SMG#24 concerning the further treatment of the UTRA definition in SMG#24bis, see section 6.1.

4.1.3 UTRA IPR

Hélène Lafferre presented Tdoc SMG 1066/97[1], *Report on Essential IPRs declared in relation to the work of SMG#24.*

Andy Bell, NEC Technologies (UK), stated that Tdoc SMG 998/97 had, for technical reasons, not been available in time for inclusion in Tdoc SMG 1066/97.

Fred Hillebrand read out section 4.1 of the ETSI IPR policy:

> "4.1 Each MEMBER shall use its reasonable endeavours to timely inform ETSI of ESSENTIAL IPRs it becomes aware of. In particular, a MEMBER submitting a technical proposal for a STANDARD shall, on a bona fide basis, draw the attention of ETSI to any of that MEMBER's IPR which might be ESSENTIAL if that proposal is adopted.
>
> 4.2 The obligations pursuant to Clause 4.1 above do however not imply any obligation on MEMBERS to conduct IPR searches."

Clarifications:

- These declarations are to be made by companies without an explicit request of ETSI. They are not restricted to the company's IPRs but also include all IPRs of other companies the company is aware of. Hélène Lafferre explained that ETSI

[1] Collector's Note: Tdoc SMG 1067/97, *TD-CDMA (delta), the best of both worlds,* was issued in some copies with the wrong number 1066/97.

secretariat considers the declaration of the owner as public, but considers the disclosure of IPRs of other companies as not sufficiently reliable for being published.

- Whereas the obligations for granting licences are valid also if a declaration has not been made, a declaration is still requested.

Hélène Lafferre has written a letter to ETSI members and also to non-members. A maximum period of three months for a response is foreseen:

> "6.1 When an ESSENTIAL IPR relating to a particular STANDARD is brought to the attention of ETSI, the Director-General of ETSI shall immediately request the owner to give within three months an undertaking in writing that it is prepared to grant irrevocable licences on fair, reasonable and non-discriminatory terms and conditions under such IPR to at least the following extent:
>
> - MANUFACTURE, including the right to make or have made customised components and sub-systems to the licensee's own design for use in MANUFACTURE;
> - sell, lease, or otherwise dispose of EQUIPMENT so MANUFACTURED;
> - repair, use, or operate EQUIPMENT; and
> - use METHODS.
>
> The above undertaking may be made subject to the condition that those who seek licences agree to reciprocate."

Comments on IPR declarations received: Neil Lilly indicated that - according to his information - companies having contributed to more than one concept group only declared IPRs in the concept group supported by the company. Alistair Urie explained on behalf of Alcatel that their declaration also applies to IPRs relevant for other concept groups than the delta group.

Hamid Amir-Alikhani stated some IPR declarations in Tdoc SMG 1066/97 not to be detailed enough.

Jean Pierre Charles, France Télécom, stated proponents of the beta and gamma group not to have declared IPRs.

Dirk Weiler stated that the final situation of IPRs is not available but an estimation of the situation can be done.

Rémi Thomas estimated that the list presented in Tdoc SMG 1066/97 is far from being complete.

Patent searches: Patent searches on a regular basis could be conducted by ETSI on a request (and participation in the costs) of ETSI members or EC/EFTA, but are at present excluded in the ETSI rules of procedure.

Essential IPRs: Peter Bumann pointed out that there are different categories of IPRs, such as essential IPRs, commercial IPRs, technical IPRs. The definition of essential IPR is found in the annex of the IPR policy document:

> **"6** **"ESSENTIAL"** as applied to IPR means that it is not possible on technical (but not commercial) grounds, taking into account normal technical practice and the state of the art generally available at the time of standardisation, to make, sell, lease, otherwise dispose of, repair, use or operate EQUIPMENT or METHODS which comply with a STANDARD without infringing that IPR. For the avoidance of doubt in exceptional cases where a STANDARD can only be implemented by technical solutions, all of which are infringements of IPRs, all such IPRs shall be considered ESSENTIAL."

List of companies approached without response: A list of companies possibly having UTRA relevant IPRs was given to ETSI secretariat on a confidential basis and can't be published.

Consequences of not declaring/granting IPRs: Hélène Lafferre explained that, if IPRs haven't been declared, the consequences are not clear, because a bona fide approach is applied. If an ETSI member or non-member refuses to grant licenses, corrective actions of ETSI (such as withdrawal of parts of a standard) are possible (8.1 and 8.2 of the ETSI IPR policy paper).

Dirk Weiler presented Tdoc SMG 930/97, stating the following position:

- the more patents relevant for a standard, the more license fees to be expected
- the most difficult position to be that where companies mainly want to earn on their patents, rather than to participate in the manufacturing/application of the technology, and do not apply the ETSI IPR policy rules

He presented statistical results (contained in the same document) of a patent research concentrating on CDMA (on only WCDMA) and TD/CDMA (excluding the - in Siemens' opinion mostly GSM relevant - patents for TDMA).

Michael Färber stated DS CDMA relevant patents not to be relevant for TD/CDMA. He explained that this was confirmed by Siemens patent lawyers.

Different interpretations of these results (e.g., a correlation of IPRs and maturity of a proposal) and comments of the search methods were stated.

Handling of IPRs in Japan: Akio Sasaki presented information from Tdoc SMG 906/97, *Current Situation and principle attitude of standardisation Activities on Radio Transmission Technology for IMT-2000 in ARIB*: Even if the number of WCDMA relevant patents were very high, the policy would be to grant licences at very low costs (for ARIB members). (The other issues of the document are discussed under section 4.1.5.7.)

Peter Adams asked for clarification on the following sentence in section 4 of Tdoc SMG 906/97 on IPRs: "ARIB has not defined an IPR policy for the IMT-2000 specifications but rather the current IPR policy may be applied."

Kiritkumar Lathia: The issue of access to a network depends on detailed technology and frequency band. Roaming is a network issue and not a radio access issue. The DoCoMo

position confronts SMG with an a priori decision. IPR statements of ARIB are problematic. For the GSM market, the evolution path to UMTS is a very essential issue.

Akio Sasaki also presented Tdoc SMG 1116/97, IPR policy of ARIB. It clarifies the conditions and applicable scope and territory.

Akio Sasaki also explained corresponding to the raised question that ARIB is considering to decide the application of the current IPR policy of ARIB to IMT-2000 specifications around February 1998.

AP AB To forward Tdoc SMG 1116/97 to ETSI legal advisor. - Done.

Leo Vercauteren pointed at the problems of a lot of small (research) companies having relevant IPRs, problems being different if operators hold patents.

Armin Toepfer presented Tdoc SMG 1061/97, *UTRA Decision - IPR Statements*, source T-Mobil, E-Plus Mobilfunk, Mannesmann Mobilfunk. He presented the following position:

- The German GSM operators are seriously concerned that patent issues if at all are not resolved in a satisfactory manner.
- It is their expectation that licenses are granted under fair and reasonable conditions without any discrimination to all members of the industry for the production of UMTS/IMT-2000 products, whatever UTRA concept will be chosen.
- The encouragement of members of the industry to notify the respective ETSI body any difficulty experienced obtaining such licenses under fair and reasonable conditions, no matter whether IPRs belong to ETSI members or not.

It was recognised by SMG#24 that the requirements expressed in Tdoc SMG 1061/97 cannot be reached by the ETSI rules. The Chairman remembered the meeting that an ice breaking activity on IPR matters for GSM had been conducted by GSM MoU in the late eighties.

4.1.4 SMG2 Presentation and discussion of UTRA concepts

Niels Peter Skov Andersen presented the UTRA concept groups (in random order):

- beta concept (OFDMA) in Tdoc SMG 894/97, Tdoc SMG 895/97 and Tdoc SMG 896/97
- delta concept (WB-TDMA/CDMA) in Tdoc SMG 897/97, Tdoc SMG 898/97 and Tdoc SMG 899/97
- gamma concept (WB-TDMA) in Tdoc SMG 900/97, Tdoc SMG 901/97 and Tdoc SMG 902/97
- alpha concept (WCDMA) in Tdoc SMG 903/97, Tdoc SMG 904/97 and Tdoc SMG 905/97

The full documentation is available as Technical Report UMTS 30.06, *UMTS Terrestrial Radio Access Concept (UTRA) evaluation*.

SMG#24 thanked SMG2 for the excellent work done.

Discussion of the SMG2 evaluation: For the limits of applying the results for a direct technical comparison, see section 4.1.

Further discussion of the UTRA definition: Among others, the following aspects were discussed:

- preferences of non-European operators
- relevance of multi-mode terminals for IMT-2000
- relevance of a single global radio interface for roaming
- importance of compatibility with GSM
- political nature of a decision on UTRA
- relations between radio access and mobility management
- missing GSM MoU requirements for 2nd generation inter-standard roaming
- missing spectrum harmonisation between North America and the other regions

Several members expressed the position of their company in favour of a concept group.

4.1.5 Contributions from other bodies on UTRA definition

4.1.5.1 UMTS Forum contributions

Thomas Beijer presented information in Tdoc SMG 1049/97, *Operators' Requirements on UTRA (UMTS Terrestrial Radio Access),* a liaison from the UMTS Forum to SMG and emphasized the requirement of selection of only one radio interface for UTRA.

4.1.5.2 MoU criteria for UTRA selection

Adriana Nugter presented requirements of GSM MoU for the UTRA selection:

- single global radio interface
- evolution from GSM platform
- global standardisation policy
- all GSM MoU members should be able to influence events
- no blocking IPRs
- fair and open access of IPRs for all technologies
- MoU endorsement depending on IPR position.

Adriana Nugter and Bengt Nordstrom (Smartone Mobile Communications) expressed their concerns on ETSI's decision not to give voting rights to associate members.

4.1.5.3 Statement of the European Commission

Bartolomé Arroyo Fernandez, European Commission, DGXIII, declared the following position:

> "Although the process of defining the actual UMTS standard still lies ahead for which ETSI has established the rules applicable to the IPR aspects involved, the current choice of the concept including its basic parameters is a decisive one. The Commission is

encouraged by the recent move of the various actors to notify ETSI of know-how they may possess and which is related to the UMTS standard.

While recognising that patents may constitute a valuable asset for firms in the commercial and global context, it is or the uttermost importance that full transparency is achieved as early as possible on the IPR situation with regard to UMTS.

Besides their technical merits, the concepts proposed for UMTS therefore in our view would gain credibility to the extent that already at this stage the conditions are known to which interested parties will be granted access to the know-how necessary to implement UMTS. Hence, it is important - at global level - to establish who owns IPRs related to UMTS and to what extent the IPR situation for the technical solutions proposed is mature.

We will carefully monitor the decisions related to UMTS which have a global impact, and call on all parties concerned to contribute in achieving transparency at this juncture. We would consider necessary action in case IPR questions would threaten to affect the further development of UMTS in Europe and at global level."

4.1.5.4 DECT Forum

Ruud van Bokhorst presented Tdoc SMG 1121/97, *Requirements for UMTS/UTRA as expressed by the DECT community,* informing about the DECT Forum and its relation to ETSI and indicating the expectations on UMTS/UTRA:

- Inclusion of at least those services and facilities offered today by DECT and GSM, i.e., fixed and mobile, private and public
- Allocation of sufficient spectrum to use these services adequately in the private and public domains
- UMTS should provide the same flexibility and efficiency as DECT's TDD (Time Division Duplex) and DCS (Dynamic Channel Selection) provide, i.e:
  - to cater for high traffic conditions in unpredictable indoor and outdoor radio environments;
  - to cater for unbalanced and variable uplink and downlink data throughput needs;
  - to allow for shared spectrum usage in the same geographical area.

In the discussion, it was clarified that DECT doesn't use UMTS frequency.

4.1.5.5 T1P1 position on UTRA definition

Mel Woinsky presented Tdoc SMG 1064/97, stating that T1P1.5 have reviewed the alpha and delta concept groups and are continuing to evaluate all technologies for their suitability for the North American needs.

4.1.5.6 SMG2 Operators' Interest Group

Keith Mayes presented Tdoc SMG 1027/97, a position paper of the Operators' Interest Group, a technical grouping of 18 operators within SMG2 discussing common concerns of

operators and pooling their technical resources as regards UTRA issues. The OIG identified several major questions to still be open, e.g. guard band issues.

4.1.5.7 ARIB position

Akio Sasaki presented Tdoc SMG 906/97, *Current Situation and principle attitude of standardisation Activities on Radio Transmission Technology for IMT-2000 in ARIB.* ARIB is preparing a WCDMA solution for the IMT-2000 radio access, in a phased approach of specification between 1997 and 1999 and commercial service from the beginning of the year 2001 onwards. ARIB is willing to modify their WCDMA concept at any stage in the extent necessary to reach a world wide IMT-2000 system based on WCDMA. For IPR related issues in the document, see 4.1.3.

It was clarified at present that several radio interface approaches in different levels are studied in ARIB, a WCDMA solution in producing detailed specifications, an IS-95 evolution proposal to merge with the ARIB WCDMA and an OFDMA solution for judgement whether to enter the detailed specification process in ARIB.

Juha Rapeli asked whether the ARIB IMT-2000 has already been decided and/or which would be the ARIB event where the IMT-2000 would be further discussed (where SMG delegates could participate).

Answer Akio Sasaki: ARIB has agreed a draft specification version 0 on WCDMA. A draft specification has a draft nature until the defined completion date when a formal approval will be requested. The decision for a DS-CDMA was made in ARIB meeting in January 1997. SMG delegates were not able to participate in the discussion for that decision because at that time there was no rule of mutual participation between ETSI/SMG and ARIB. But they can participate in the discussion on parameters of the solution.

In this matter, Akio Sasaki presented the *Meeting schedule of IMT-2000 study committee in ARIB* in Tdoc SMG 1117/97. Hamid Amir-Alikhani indicated that the dates for the OFDMA related activities are missing in that paper.

Note: OFDMA (called BDMA in ARIB.) related activities are considered by ARIB to be out of scope for mutual participation targets. As for an information, the exact date for discussion on OFDMA is Dec. 22, 1997.

Andy Watson predicted WCDMA to be in operation (in the first phase, for basic telephony) for two or three years before UMTS like operation starts.

Answer Akio Sasaki: The step one of IMT-2000 commercial services from the spring of the year 2001 will offer multi media services with a capability of at least up to 384 kbit/s data rates.

Gunnar Sandegren: Why does Siemens support WCDMA in Japan?

Answer Dr. Kohnhäuser/Dirk Weiler: Siemens supported WCDMA only in the scope of the FRAMES project (where Siemens, Nokia, Ericsson participated and where the technology foresaw different modes in WCDMA and TD/CDMA).

Fumiyuki Adachi, NTT DoCoMo, presented Tdoc SMG 1037/97, a letter from NTT DoCoMo to SMG. Main issues:

- Memorandum of Understanding NTT DoCoMo - Telecom Italia Mobile - Telecom Finland for co-operation on a 3rd generation communication system
- NTT DoCoMo's support of WCDMA and the evolved GSM Core Network
- Co-operation with other parties in Asia and Oceania
- IPR policy of NTT DoCoMo.

Andy Bell presented Tdoc SMG 999/97, *Supporting ETSI/ARIB co-operation on WCDMA*, source NEC, Panasonic, Fujitsu, Mitsubishi Electric, indicating that the source companies are contributing to the standardisation of WCDMA both in ETSI and ARIB, support the principle of regional standardisation activities put forward in Tdoc SMG 906/97, where the regional body is solely and completely responsible for the approval and publication of regional standards according to their own requirements. However, these companies actively encourage any mutually beneficial convergence of the ETSI and ARIB (and any other) WCDMA standards as has already successfully happened in the ETSI Alpha Concept and ARIB WCDMA working groups.

Heikki Ahava argued PDC to require very low license fees. He reported the technical co-operation between Nokia/Ericsson and ARIB having been very good, and proposals to have been evaluated strictly on technical grounds.

Pietro Porzio-Giusto: After a selection of the alpha concept, standardisation in SMG should start as it was the case in GSM after the decision on basic radio interface parameters. The difference is that other bodies like ARIB would have to get the possibility to co-operate.

Josef Huber, Dirk Weiler: As regards Tdoc SMG 1037/97: TD/CDMA has not been discussed in Japan. The statement that Japan will select WCDMA whatever solution is taken in ETSI, is hardly compatible with the claim to go for ITU standardisation.

Hamid Amir-Alikhani: Isn't it premature to state that the choice must be WCDMA?

Answer: Service should start in 2001. The decision of DoCoMo is WCDMA.

Hamid Amir-Alikhani: Tdoc SMG 906/97: Is there no other technology studied in ARIB than WCDMA for the IMT-2000 radio access?

Answer Akio Sasaki: No other technology than WCDMA is studied in detail as a proposal; OFDMA is studied and at the end of this month it will be decided whether to open a detailed OFDMA study. In reality very few members in ARIB want to study OFDMA, but such a decision is necessary.

Hamid Amir-Alikhani: Hence, as OFDMA has a TDMA component, TDMA is studied as an alternative approach?

Sasaki: ARIB decided that W-TDMA cannot be a basis for a proposal to ITU.

Summary: In ARIB there is broad support and major progress in WCDMA, but other proposals are also on the table.

Rémi Thomas: We have so many new information in this meeting that a decision is not yet possible. Both papers state that ARIB will chose WCDMA whatever ETSI decides. Service is planned for 2000/2001, but this will be basic telephony only, and of no use for the GSM world. Do GSM operators want to get rid of GSM?

Radivoj Kar explained the decisions in Japan having been misunderstood in Europe; The basic decision having been WCDMA; then the government having obliged the Japanese Mobile world to look for a world wide standard; the first contacts having been to Europe and the expectation to be that - if WCDMA is selected in ETSI - the solution to be harmonized. IPRs: Japanese companies, in particular Mitsubishi, don't use their IPRs for making money but for protection (cross-licensing).

Fred Hillebrand: Such statements should be made official in written form to ETSI. There is a mismatch in the schedules in Europe and Japan, due to the pressure of the Japanese Ministries to allocate new spectrum only in a new technology. Certainly the co-operation between SMG and ARIB should be increased; in particular, the schedules should be aligned in future.

Akio Sasaki agreed to write a letter to SMG/ETSI with a clear IPR statement, in particular whether the conditions apply only to ARIB members. See also Tdoc SMG 1116/97.

Juha Rapeli: Can SMG members participate at the ARIB meeting later this month?

Akio Sasaki responded that participation is welcome according to the agreement ARIB/SMG, and that several meetings are scheduled. The necessary information was made available during SMG#24, see Tdoc SMG 1117/97.

Kiritkumar Lathia: Tdoc SMG 1037/97, signed by the President of NTT Mobile Communications Network (DoCoMo), says: "Our decision as of this point is that NTT DoCoMo will not select TD/CDMA, even if ETSI selects this technology." Over the page the document states that introduction in the year 2000 is a must for DoCoMo. Questions: Will DoCoMo support WCDMA whatever ETSI will chose? Question 2: Will the core network be attached to an evolved GSM core network? Or will, in 2000/1, the radio be attached to the PDC core network?

Fumiyuki Adachi: NTT DoCoMo strongly believes that WCDMA is the best solution, that opinion is also shared in Asia. GPRS like services, namely Voice, Internet, Multimedia services, are planned in 2000. An overlay and parallel use with interworking function of PDC and the evolved GSM Core Network is planned for 2001.

Bengt Nordström: The application of the GSM Core Network evolution is a good success, the alternative being an IS41 evolution.

Fred Hillebrand: The approaches in TTC are not evidently in line with the positions expressed by DoCoMo in Tdoc SMG 1037/97. Could a document be provided (after SMG#24) what the policy on Core Network development in Japan is? How will the integrity of the GSM platform be guaranteed?

Fumiyuki Adachi: Such a document will be provided by NTT DoCoMo. Alistair Urie: The information should be complete, e.g., as regards selling systems to third parties, IPRs in the proposal outside of DoCoMo.

Kiritkumar Lathia: There must be a roll-out plan for Japan. The building up of an overlay network will take around two years. Which GSM Core network specifications will be used? How can GPRS be included?

Don Jayasuriya: Time scales: The UMTS Forum proposed a European roll-out in 2002, this was confirmed by the UK consultation and the EC consultation results. CEPT proposed to make the necessary steps for providing the frequencies in time. Licensing certainty in UK is planned for end 1998. IPR matters must be clarified, discussions must be continued not only in ETSI, also, e.g., DG IV must be engaged in that discussion.

Clarification of time scales: Japanese schedules talk about spring of the year 2001 for start of commercial service, this means 8-9 Months ahead of Europe depending on the start in January 2002.

Alistair Urie: The Japanese IMT-2000 version 1 might go in direct competition with GSM in Asia, and this is already visible.

Paul Simmons: How can compatibility and convergence be feasible in the time scales, seeing the different solutions for IMT-2000 which will be realised and the requested compatibility with second generation systems?

4.1.6 Presentation of contributions to the concept groups

The contributions to the concept groups were discussed in a controversial manner. SMG#24 did not conclude on technical points in addition to the SMG2 results nor on a modification of criteria.

4.1.6.1 Alpha concept

Antti Toskalla presented Tdoc SMG 1069/97, *Dual mode GSM/UMTS terminal complexity*, source Nokia, Ericsson. The document argues the WCDMA UMTS radio interface to have as good or better GSM/UMTS dual mode properties as/than any other candidates. This was objected by Michael Färber.

Mikael Gudmundson presented Tdoc SMG 939/97, *Performance comparison based on SMG2 evaluation reports: WCDMA vs. WB-TDMA/CDMA*, source Ericsson. The paper argues the WCDMA concept to give, on basis of the prioritised test cases and of those cases where both concepts have submitted results to SMG2 and on results of the SMG2 evaluation reports and related documentation, to give better system capacity results than TD/CDMA in all cases, especially in low-speed environments. Michael Färber referred to Tdoc SMG 1023/97 giving a different interpretation. Patrick Blanc, Hamid Amir-Alikhani and Simon Pike commented on the validity of technical approaches, evaluation backgrounds and methods and on missing support in SMG2 for discussing such aspects.

Andy Bell presented Tdoc SMG 1000/97, *Supporting the selection of WCDMA for UTRA*, source NEC. The paper argues W–CDMA to be the superior choice based on coverage, capacity, flexibility, cost, and development risks related criteria. Andy Watson argued this position to concentrate on basic speech application. Paul Simmons repeated the argument about the Japanese time scales to risk to narrow the 3rd generation services. Dirk Weiler asked where extensive W–CDMA field tests have been performed in Europe. Andy Bell answered that demonstrators have been used in the Frames project and in Japan, and that IS-95 is a good field test for CDMA. Keith Mayes, Vodafone, stated that real world tests are missing. Rémi Thomas raised doubts on WCDMA having lower development risks, due to the high priority of compatibility with GSM and the narrow range of services in the Japanese phase 1. He stated there not to be a test bed for frames mode 2 in the test bed. Alistair Urie argued that, if IS-95 is taken as reference field test, the lesson to learn would be real capacity to be much lower that theoretically predicted (load margin factor).

Teuvo Jarvela presented Tdoc SMG 1071/97, *Radio interface selection for UMTS*, source Nokia. The document states Nokia to have concluded, based on extensive tests, W–CDMA to be the best choice for the continuous evolution of GSM to UMTS/IMT-2000.

Gunnar Sandegren presented Tdoc SMG 1072/97, *Aspects of selecting Radio Access technology for the 21st century*, source Ericsson. The paper argues W–CDMA to have advantages due to coverage, capacity, support for multimedia and Internet, complexity and maturity, migration and re-farming aspects and gives marketing and commercial backgrounds/forecasts on GSM and UMTS. Kiritkumar Lathia: Other commercial aspects include Return on investment (in cellular systems after not less than 7 years, 15 years to write off investments). Gunnar Sandegren pointed out that Ericsson, in addition to elaborate on UTRA, is also driving the GSM radio access development.

Andrew W.D. Watson presented Tdoc SMG 1022/97, *Alpha concept evaluation - An alternative view*, source Motorola. Motorola's position is that the basics (channel modelling etc.) for the alpha concept have taken a large number of simplifications and that therefore the predicted performance must be seriously questioned. This was objected by Mikael Gudmundson, Ericsson.

4.1.6.2 Beta group

No additional documents were presented.

4.1.6.3 Gamma group

No additional documents were presented.

4.1.6.4 Delta group

Alistair Urie argued the importance of compatibility of 3rd generation systems with corresponding 2nd generation systems to be very high. He presented Tdoc SMG 1067/97, *TD-CDMA (delta), the best of both worlds*, source Alcatel, Bosch, Italtel, Motorola, Nortel, Siemens and Sony, favouring the TD-CDMA solution.

Paul Crichton and Michael Färber presented Tdoc SMG 1023/97, *Enhanced TD-CDMA, A revolution for UMTS and an evolution of GSM*, source Alcatel, Bosch, Italtel, Motorola, Nortel, Siemens, Sony. Johan Sköld argued the enhanced TD-CDMA to have been presented only recently; he criticised numbers in the document. Sunil Vadgama responded other groups also to have made progress leading to changes in the last few weeks. Kiritkumar Lathia challenged Johan Sköld's argument asking why SMG should not allow progress in the delta concept just because the W–CDMA solution being frozen. Johan Sköld responded that this is the idea of the refinement phase.

Vagan Shakhgildian argued that seeing the work of SMG2 mainly concentrating within 6 months, a 2 weeks old result could not be called "too recent". He draw the attention to Tdoc SMG 1022/97, WB-CDMA - an alternative view, source Motorola, were evaluation methods of the alpha solution are challenged.

Sunil Vadgama presented Tdoc SMG 1087/97, *TD-CDMA performance degradation with the new OQPSP spreading*, and Tdoc SMG 1088/97, *Simulation Results in the detectability of WB-BCCH pilot signal of the delta concept*, both source Fujitsu, contradicting elements of Tdoc SMG 1023/97.

Jean-Louis Dornstetter presented Tdoc SMG 1093/97, *Clarification with Respect to the documents on TD-CDMA Performance Tdoc 1087/97 and tdoc 1088/97 by Fujitsu*, source Nortel, Motorola, contradicting positions in document Tdoc SMG 1087/97 and Tdoc SMG 1088/97, referring to SMG2 papers of the Cork meeting.

Joseph Huber recommended Tdoc SMG 1023/97 to be studied by SMG2; he argued the TD-CDMA approach to inherently contain a Time Division Duplexing solution (for the unpaired band).

Paul Simmons emphasized two reasonings used in Tdoc SMG 1023/97, soft handover not to be required and lower costs of ownership.

Johan Sköld challenged the table at the bottom of page 10 in Tdoc SMG 1023/97.

Jean-Louis Dornstetter sees the decision between a clean break for a W–CDMA solution or the (r)evolution of GSM to TD-CDMA where the theoretical performances are governed by physical laws. He stated the new detector in the TD-CDMA solution not to be a new technical aspect, but rather an improvement of evaluation; major points relevant for the performance of the radio access - outside of the area of multiplexing/modulation - not to have been examined by SMG2.

Niels Peter Skov Andersen defended the technical parts of the SMG2 work. He asked for consensus of manufacturers on improving the solution based on a decision for any concept group. Talking as an operator, he saw less importance of the minimum required block size for re-farming where 2Mbit/s services require a relatively big allocation of frequency.

Josef Huber argued important criteria to be minimum bandwidth required, closeness to GSM, asymmetric cases, IPR, improvement capacities for reuse factor.

Patrick Blanc presented Tdoc SMG 1042/97, *France Telecom position on UTRA concept*, and Tdoc SMG 1019/97, *Technical Analysis and Comparison of UTRA concept*, both source France Télécom. The position is:

- France Télécom regrets that there is no technical report from SMG2 regarding the evaluation and comparison of these concepts;
- there were no independent evaluation of the concepts. The France Télécom internal simulations results appeared to be significantly different from those presented by the concept groups, especially for capacity evaluation by system simulations;
- Support of high bit rate services to be given by TD-CDMA but not by W–CDMA.
- IPR from Qualcomm on fast power control and soft handover issued from IS'95, and there being probably other Japanese IPR on WCDMA;
- environment for GSM compatible evolution given for TD-CDMA, not CDMA;
- equivalence in stability;
- no validation of the operational aspects of the different concepts using experimental networks in Europe. (These experimental networks could provide some answers to the concerns expressed during the evaluation procedure, where simulations might not be fully convincing.)
- lack of experience of operation of CDMA solutions in Europe.

Juha Rapeli presented Tdoc SMG 1073/97, *UMTS Deployment by Private Operators*, source Philips, seeing an advantage of

- TDMA (with less than 400 kbit/s) in a single transceiver without duplex filters and without shielding

against

- CDMA requiring a duplex filter, separation of receiver and transceiver, shielding, separation of digital processing from analogue/digital I/F.

In easy terms: time division of sending and receiving to allow smaller and cheaper terminals, these differences not disappearing with mass production (objected by Robert Vass, Ericsson, but maintained by Rapeli because the additional chip would not disappear). Also an equivalence of the four proposals, but ignoring latest antenna developments (SDMA on the fixed side, two antennas in the terminal). This being less applicable for spreaded signals where the source can only be localised after de-spreading.

Juha Rapeli presented Tdoc SMG 1074/97, *UMTS Radio Access for cost efficiency and consumer features of UMTS terminal*, source Philips, raising the TDD question, giving an evaluation of feasibility for alpha and delta, concluding it to be intrinsic in delta.

4.1.6.5 ODMA

Keith Mayes presented Tdoc SMG 1028/97, *Information on ODMA*, source Vodafone, Siemens, Ericsson. Potential of ODMA were investigated (due to resource constraints, only for the alpha and delta group, but the results are also applicable for beta and gamma) for UTRA. It was concluded that the ODMA relaying techniques allow very wide area high data rate coverage, increased capacity and reduction of transmitted power.

4.1.7 Results of Voting of indication of intent

The voting was held on the following question:

"The members of SMG[2] are requested to indicate by their vote what would have been the technical solution among the technical proposals related to UTRA they would have chosen, had a formal selection by vote been conducted. Abstentions should be indicated in the voting form but they will only be recorded for information.".

Result of the voting: 141 ETSI full members participated.

alpha: 58.45%, 716 votes

beta: 0%

gamma: 0%

delta: 41.55%, 509 votes

abstentions: 19 members with a total weighting of 167 votes.

Note: The number of members voting for each alternative were not counted, because that might disclose the votes. This was challenged by some delegates. The legal advisor confirmed this position after further examinations.

4.1.8 Further discussion of UTRA

Hamid Amir-Alikhani stated that the OFDMA concept group maintains their proposal.

4.2 UMTS SERVICES

Alan Cox presented Tdoc SMG 983/97 which includes a short summary of the decisions required from SMG#24 by SMG1. Derek Richards presented the following documents for approval and information:

ETS 22.01 "Service Principles" CRs A005 and A006 to ETS 22.01 "Service Principles" in Tdoc SMG 966/97 and Tdoc SMG 967/97 were approved.

Eric Ljungberg, Telia, presented Tdoc SMG 1008/97, *Comments on CR to TS 22.01 Service principles regarding multiple subscriptions,* proposing to remove the requirement to allow multiple subscriptions per IC card where this involves more than one Service Provider of equal status; this was supported by several operators. Derek Richards explained that the CR in Tdoc SMG 966/97 does not introduce this requirement but rather clarifies an existing requirement. Alan Cox recalled that he had

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[2] The members of SMG are ETSI full members registering in an SMG meeting.

raised similar concerns in SMG1, but there had been little support for his concerns; he recommended to follow the SMG1 conclusion to keep the requirement and to come back if and when difficulties were identified; Gary Jones supported that view.

Eric Ljungberg was asked to prepare in a side group during SMG#24 a paper with a more concrete proposal. This turned out not to reach agreement, so SMG1 was invited to study this aspect again, taking note of the views expressed in SMG.

UMTS TR 22.60 v.1.0.0 - Mobile multimedia services including mobile Intranet and Internet services in Tdoc SMG 960/97 was presented for information.

Service Continuity and Provision of VHE via GSM/UMTS: This new work item and its work item description in Tdoc SMG 1044/97 were approved by SMG#24; updating and completion of the WID is expected.

Service aspect proposed for Chapter 9 of UMTS 30.01 Version 3.1.0: Inclusion of the text in Tdoc SMG 1041/97, source SMG1, into the UMTS Baseline document UMTS 30.01 was approved.

UMTS 22.25, *Quality of Service and Network Performance,* in Tdoc SMG 959/97 was presented in its version 2.0.0. Niels Peter Skov Andersen will review the network parameters in section 5.1.2, Simon Pike in 5.6.1; in particular the requirement of synchronisation (skew) of media components < 10 ms might be too ambitious; the update rate of the video should be considered. The specification was approved.

UMTS 22.80 version 2.0.1, *UMTS Relationship to other Standards,* in Tdoc SMG 964/97 was noted. Derek Richards emphasized that as visible in the document, contacts to other bodies and fora (e.g. on Internet) would be necessary. It will be used for the mission on SMG globalisation and work in SMG1 will be suspended while this activities goes on. As a result, the report was not formally approved.

UMTS 22.05, *Services and Service Capabilities,* in Tdoc SMG 955/97, was presented for information. Derek Richards commented that further work is needed, for example in sections like 5.3; Niels Peter Skov Andersen proposed a clearer separation of bearer/teleservice requirements (addressing the data rates etc. as perceived by the user) from radio transmission attributes where some freedom exists how to fulfil the service requirements.

UMTS 22.07, *Terminal and smart card concepts,* version 1.0.0) in Tdoc SMG 956/97, was presented for information. Derek Richards urged in particular operators to review whether their requirements are neatly expressed.

UMTS 22.24, *New Charging and Accounting Mechanisms* in Tdoc SMG 958/97 and UMTS 22.71, ***Automatic Establishment of Roaming Relationships*** in Tdoc SMG 962/97 were presented for information and should be studied carefully by SMG delegates. They will be passed for comments to MoU 3GIG and to ETNO.

UMTS 22.70, *Virtual Home Environment,* in Tdoc SMG 961/97, was presented for information. In its further elaboration, contact to Information Technology groups might be necessary.

UMTS 22.75, *Advanced Addressing,* in Tdoc SMG 963/97, was presented for information.

Further UMTS work items are in preparation; SMG1 was advised to create the work item descriptions and to come with short papers on strategic issues to SMG for guidance before starting detailed reports.

The role model approaches in TG.25 and UMTS 22.01 are related to each other in a figure in Tdoc SMG 968/97. The discussion on the role model is also carried out with the UMTS group of NA6 with good mutual understanding.

SMG1 was thanked to their good efforts and success to implement SMG#23 wishes.

4.3 UMTS NETWORKS ASPECTS

Michel Mouly presented a *Proposal for a contribution to ITU on the interface section of Q.FIN* Annex D in Tdoc SMG 1100/97. It was approved.

Ansgar Bergmann presented Tdoc SMG 882/97, *GSM-UMTS Core Network definition pivoting GSM Core Network evolution.* It was approved.

Eckehard Valta questioned consequences on the fixed/mobile convergence ad hoc group of the ETSI General Assembly (GA). Fred Hillebrand stated that the ideas of fixed/mobile convergence in ETSI are vague. In the activity to study that convergence, clear work items would have to be identified. These could then be elaborated by the responsible Technical Bodies. Michel Mouly added that the proposed managerial means are meant for phase 1 whereas convergence would be picked up in phase 2. Alistair Urie indicated the possibility to distinguish within SMG3 a project for GSM-UMTS Core Network phase 1 and phase 2. Neil Lilly indicated further requirements from 3GIG to be forwarded to GSM in early 1998.

Jonas Sundborg presented Tdoc SMG 1043/97, *Migration and evolution from GSM*, source Ericsson. Several speakers emphasized the necessity of evolution and compatibility which becomes more ambitious, the more advanced features are introduced into UMTS. The paper proposes three points,

- SMG to state migration and evolution as a formal requirement, including a definition or guiding principles for what this shall mean,
- SMG to state which group, preferably SMG1, shall be responsible for specifying the details of this requirement and
- SMG to state guiding principles for how conflicts shall be resolved if all requirements for migration/evolution and functionalities/capabilities respectively can not be met.

It was argued that evolution should certainly be a formal requirement. For the responsibilities on evolution aspects between the STCs, also proposals were brought up (by François Courau and Armin Toepfer) to establish SMG3 SA as an STC. Due to lack of time, the discussion of Tdoc SMG 1043/97 did not reach formal conclusions. It was also discussed in an SMG-CG ad hoc during SMG#24 plenary and will be further discussed between the STC Chairmen.

New Access Network to Core Network (BSS-NSS) interface: Michel Mouly presented Tdoc SMG 1112/97, the WID of a new work item *New Access Network to Core*

Network (BSS-NSS) interface. It was approved in principle and forwarded to SMG3 for revision if needed and final approval in SGM#25.

Dirk Weiler raised the general comment that WIDs should first be seen by the STCs.

NTT DoCoMo plans for migration to third generation core network: Masami Yabusaki, NTT DoCoMo, presented the NTT DoCoMo plans for migration to third generation core network in Tdoc SMG 1118/97. The basic idea is to attach the IMT-2000 radio access to the GSM-UMTS Core Network and to provide an interworking function between the PDC Core Network and IMT-2000 Core Network. The first commercial phase beginning in 2001 would be based on the GSM specifications with the draft UMTS evolution. The second commercial phase beginning in 2001 and 2002 would be based on the evolved GSM-UMTS specifications.

This position has been identified in TTC as a possible input to SG11; further information is given in Tdoc SMG 1085/97, a letter from Tokuo Iida, TTC Executive Managing Director. TTC sees INAP as a long term ultimate solution.

4.4 UMTS PROGRAM MANAGEMENT

4.4.1 UMTS Specifications

Concerning the following documents:

- ETR271 UMTS Objectives and overview
- ETR309 Vocabulary for UMTS
- ETR291 UMTS System requirements
- ETR312 Scenarios and considerations for the introduction of the UMTS
- TCR TR 015 "Work programme for the standardization of the Universal Mobile Telecommunications System (UMTS)"
- TC TR 004 "Work programme for the standardization of the Universal Mobile Telecommunications System (UMTS) (UMTS 00.01)

the following handling was proposed by Antun Samukic in Tdoc SMG 1052/97 and approved by SMG#24:

- These ETRs should be stored on the ETSI server under sub-directory “SMG5” with the note on the status of the documents.
- To clarify the actual positions on UMTS these documents should be formally withdrawn.

UMTS 30.20*, Technical characteristics, capabilities and limitations of mobile satellite systems applicable to the UMTS* (draft version 3.1.0) in Tdoc SMG 1055/97 was approved.

4.4.2 UMTS 30.00 (UMTS work program)

Antun Samukic presented Tdoc SMG 1053/97, the updated UMTS work program in UMTS 30.00 which was approved by SMG#24 as version 3.3.0.

4.4.3 New UMTS Work items:

Service Continuity and Provision of VHE via GSM/UMTS: This new work item and its work item description in Tdoc SMG 1044/97 were approved by SMG#24; updating and completion of the WID is expected. (Cf. section 4.2.)

Further UMTS work items are in preparation; SMG1 was advised to create the work item descriptions and to come with short papers on strategic issues to SMG for guidance before starting detailed reports. (Cf. section 4.2.)

New Access Network to Core Network (BSS-NSS) interface: Michel Mouly presented Tdoc SMG 1112/97, the WID of a new work item *New Access Network to Core Network (BSS-NSS) interface.* It was approved in principle and forwarded to SMG3 for revision if needed and final approval in SMG#25. (Cf. section 4.3.)

4.4.4 UMTS baseline document

Antun Samukic presented Tdoc SMG 1054/97, the draft updated UMTS baseline document in UMTS 30.01.

Hans Hauser stressed section 9.3, Charging aspects, of the baseline document: “Some conflicting elements of charging related aspects in UMTS 22.24 and TG.24 with MoU BARG which currently plans to establish UMTS charging principles have been discovered. Discussions leading to clarifications are needed.” He quoted BARG plans to contribute in 1999 to the matter; that would be too late. Outside of the meeting he identified that BARG is now intending to study the issue in 1998 and tries to establish for that purpose a joint working party similar to the way it was done for CAGE 2+.

It was agreed to update the information in section 9 on location services.

Comment Simon Pike: Some statements in 30.01 are background information and not decisions of SMG.

It was agreed that section 10.8, section 14.3 first paragraph and section 14.4 should be deleted.

The version including all agreed comments will be distributed as version 3.2.0 after SMG#24.

Tdoc SMG 1009/97, *Proposed changes to UMTS 30.01*, source Telia, was presented. It was agreed to collect further comments to UMTS 30.01 during the week of SMG#24; however to update UMTS 30.01 only corresponding to decisions that had already been made; that companies wanting to change positions or agree new positions, should provide standalone papers on the proposals (without indication of changes to UMTS 30.01).

UMTS documentation on the Web: Antun Samukic presented Tdoc SMG 1057/97 for information, giving information where to find electronic versions of the UMTS documentation on the Web.

4.5 ITU CONTRIBUTIONS

ITU Workplan for SMG: David Williams presented the updated *Workplan for SMG contributions to ITU* in Tdoc SMG 1010/97, source David Williams and Makis Kokkos. Due to a formatting problem with a figure in section 4, the document was re-issued as Tdoc SMG 1129/97. Regarding a question from Harald Dettner, it was clarified that any SMG member can identify the need for contribution.

SMG#24 approved Tdoc SMG 1129/97, revising Tdoc SMG 1010/97.

Tdoc SMG 1094/97, *ITU-T contributions table*, was presented for information and noted by SMG#24.

Regarding the length of discussions on ITU contributions in SMG plenary, Niels Peter Skov Andersen suggested to have initial discussions of the ITU inputs in side events during SMG plenaries.

Contributions to ITU-T SG11: Tdoc SMG 1011/97, a change request to Q.FIN to update the table of IMT-2000 capabilities and features was objected by Tdoc SMG 997/97, presented by Alain Sultan; Tdoc SMG 997/97 proposes to use the terms of a circular letter (8/LCCE/47) issued by TG8/1, specifying the IMT requirements for bearer capabilities in IMT-2000, in particular "at least 2 Mbit/s". This was supported by different speakers, Peter Adams, Neil Lilly, Patrick Blanc, Gary Jones, and contradicted by Timo Ali-Vehmas, Derek Richards, and others. It was agreed that a change of an approved SMG position (namely to change "at least 2 Mbit/s", as stated in the UMTS baseline document, UMTS 30.01, to "up to 2 Mbit/s") would require a proper input. Tdoc SMG 1011/97 was approved with the modification to go back to the requirement of at least 2 Mbit/s.

Tdoc SMG 932/97, source SMG Chairman, was presented by Ansgar Bergmann as a proposed SMG policy paper (to be reflected in the baseline document).

Tdoc SMG 1012/97 is a subset of Tdoc SMG 932/97 presented for approval as a change request to Q.FIN. Derek Richards presented Tdoc SMG 1026/97 proposing to delete figure 1 and the latter 2 paragraphs in section 4 of Tdoc SMG 1012/97. Reason is not to restrict ITU work. Gary Jones supported Tdoc SMG 1012/97 and objected against Tdoc SMG 1026/97. Tdoc SMG 1012/97 was agreed by SMG#24, with Lucent stating disagreement, with the following modification: To replace the circles in the figure by straight lines. The revision presented in Tdoc SMG 1125/97, however, was not agreed to implement the decision so that no approved document emerging from Tdoc SMG 1012/97 was established at SMG#24.

For Tdoc SMG 932/97, it was agreed that section 2.3 would need elaboration to include network concepts; the table in section 2.2 was felt too restricted, it was commented that it should refer to at least 2Mbit/s and should better reference requirements in other (ITU) papers than to repeat some of them. (Comments from Harald Dettner, Alistair Urie, Neil Lilly).

It was agreed to replace section 3 of Tdoc SMG 932/97 by the sections 6.4 ff. in Tdoc SMG 1012/97.

Tdoc SMG 1132/97, revising Tdoc SMG 932/97, was approved with one modification: "The interested parties representing the various" instead of "The possible network operators of different".

Contribution to ITU-T SG11 on the interface section of Q.FIN: A change request to Q.FIN on IMT-2000 interfaces, source SMG3, was presented by Michel Mouly. Tdoc SMG 1013/97 is a misprint not showing necessary revision marks. The correct printing is in Annex D of the SMG3 status report in Tdoc SMG 1100/97. SMG#24 approved the document in Annex D of Tdoc SMG 1100/97 to be presented to SG11 on behalf of SMG.

Tdoc SMG 1014/97, proposing a new definition of the IMT-2000 family concept and describing the role of SMG, was presented by David Williams. It was agreed to delete the word "concept" in the title of section 1: "IMT-2000 Family". Derek Richards presented Tdoc SMG 1025/97, source Lucent, objecting a restriction of ITU from detailed protocol definition. It was supported by British Telecom and Alcatel. Didier Chauveau proposed deletion of the words "GSM phase 2+ and" in Tdoc SMG 1014/97 arguing that GSM phase 2+ is outside of the interest of ITU. Due to lack of time, SMG#24 did not take a final decision on Tdoc SMG 1014/97.

Contributions to TG8/1: Niels Peter Skov Andersen presented Annex 5 and 6 of the Status report of SMG2 to SMG#24 (Tdoc SMG 1017/97), two SMG2 documents to be presented to ITU meetings for information purposes. SMG#24 approved these documents to be presented to TG8/1 on behalf of SMG.

Tdoc SMG 1111/97, *Proposed SMG Contribution to TG8/1 on IMT-2000 Family*, was presented by Chris Wildey on behalf of the SMG ITU-R Co-ordinator.

Patrick Blanc proposed such papers to be communicated between TG8/1 members. He asked, if the document is approved by SMG, how it could be modified by TG1 in Mainz.

It was clarified that SMG approved positions cannot be changed by ITU members. Chris Wildey commented further that the family concept must be explained, this does not require passing through TG1.

There were requests for clarifications on section 5 from Patrick Blanc, Steve Hayes and Simon Pike, to section 6 from Didier Chauveau and Peter Adams, the latter arguing a publication within ITU to be helpful for e.g. IPR questions. Bob Tompkins proposed more harmonisation with Tdoc SMG 1014/97. Simon Pike asked such papers to be forwarded to SMG and SMG2 in time.

A revision of Tdoc SMG 1111/97 in Tdoc SMG 1128/97 was approved by SMG#24 to be presented to TG8/1 on behalf of SMG.

Chris Wildey presented Tdoc SMG 1097/97, a proposed LS to ERC TG1 responding to the ERC TG1 LS to SMG on WRC-99 Agenda item on Global Radio Control Channel. Tdoc SMG 1097/97 was approved by SMG#24 with minor modifications (the revised version to be issued as Tdoc SMG 1163/97).

A Liaison Statement to ITU-R TG8/1 on speech codecs, Source SMG11, in Tdoc SMG 954/97, was presented by Phil Gaskell. SMG approved the document to be presented to TG8/1 on behalf of SMG.

Co-operation with other Standards Organisations: Ansgar Bergmann presented Tdoc SMG 1109/97, *Draft Summaries of two telephone conferences TIA/SMG/T1P1*. The document was noted.

Fred Hillebrand presented Tdoc SMG 1110/97 (replacing Tdoc SMG 1058/97), *IMT-2000 Co-ordination*, proposing dates and agendas for IMT-2000 co-ordination meetings with TTC, ARIB, T1P1, TIA and TTA. The document was approved by SMG#24 with editorial corrections, see Tdoc SMG 8/98 (issued after SMG#24).

4.6 OTHER UMTS ISSUES

SMG2 is planning a workshop on UTRA after the decision on a concept has been made by SMG.

5 GSM MATTERS OF STCS

Results of Change Requests presented to the meeting are in Annex 2. Therefore the results are not always repeated in this part B.

Discussion of STC GSM matters in SMG#24 was restricted to essential decisions (focus R97) requested from SMG plenary. Status reports of STCs on GSM matters were not foreseen in SMG#24. In this report, only a reference to the status reports (where available) is given.

5.1 SMG1

5.1.1 Phase 2 change Requests

GSM 02.81: All CRs in Tdoc SMG 978/97 were approved.

5.1.2 Release 96 Change Requests

Both CRs in Tdoc SMG 970/97 on GSM 02.01 were approved.

A CR to GSM 02.30 in Tdoc SMG 974/97 was revised during SMG#24. The revised version in Tdoc SMG 1149/97 was approved by SMG#24.

Both CRs in Tdoc SMG 972/97 (to 02.42 and 02.07 regarding the indication of time in addition to time zone) were approved.

A CR In Tdoc SMG 975/97 on GSM 02.41 was approved.

5.1.3 Release 97

GSM 02.66, *Support of Mobile Number Portability (MNP) Stage 1*, was approved.

GSM 02.95, *Support of Private Numbering Plan (SPNP) Stage 1*, in Tdoc SMG 980/97 was approved to become part of R97.

GSM 02.96, 03.96 and 04.96, *Name Identification Supplementary Service Stage 1, 2 and 3* together with CR 04.80-A007 r2 in Tdoc SMG 1081/97 were approved.

In this matter, Derek Richards presented Tdoc SMG 1065/97, *Stage 1 of the CNAP*, asking for methods to include needs from markets other than the North American one.

It was clarified that variants for other market needs are expected to be added in future.

Release 97 Change Requests:

Tdoc SMG 976/97, Tdoc SMG 977/97, Tdoc SMG 979/97 were approved.

Tdoc SMG 973/97 contains CR 02.11-A009 introducing the requirement that roaming from one GSM PLMN area to another shall be possible without interruption of GPRS services, and that the availability is subject to inter-PLMN agreements.

Niels Peter Skov Andersen asked whether consequences on charging, registration etc. have been studied; also it was objected that at the end of the GPRS phase 1 specification an essential new requirement appears. Niels Peter Skov Andersen stated the position of Tele Denmark, that introduction of handover between PLMNs should not been introduced on a partial basis but only after a broad study for all services, also taking into account regulatory situations. Mikko Kanerva indicated that for some time the GPRS stage 1 and 2 has not excluded GPRS service continuation between PLMNs (under the proviso of agreements between operators).

Tdoc SMG 973/97 is not approved. Maintenance of GPRS sessions when changing networks may be studied within the scope of inter-PLMN handover.

All CRs related to network alerting in Tdoc SMG 971/97 were approved by SMG#24.

5.2 SMG2

The **GSM related part of the SMG2 Status report** in Tdoc SMG 1017/97 was presented by Niels Peter Skov Andersen.

The situation for hosts is still earnest, in particular for subgroup meetings hosts are needed.

For priority in PT SMG of establishment of the new versions of specifications against support of meetings (letter from SMG2 to PT SMG leader in Annex I of Tdoc SMG 1017/97), see section 3.2.

Liaison from SMG2 to SMG on Cell re-selection enhancements (Annex II of Tdoc SMG 1017/97: Noted.

Change requests: The following change requests to the GSM standard were presented to SMG#24 for approval:

97-985	R97	CR 03.64 A031r1 Clarification on the use of hysteresis for cell re-selection
97-946	R97	CR 04.03 A005 r2 Introduction of GPRS
97-946	R97	CR 04.04 A001 r2 Introduction of GPRS
97-941	R97	CR 04.08 A181 r5 System Information type 10
97-941	R97	CR 04.08 A246 Frequency redefinition procedure for multislot configuration
97-941	R97	CR 04.08 A247 r2 Clarification to SACCH procedures for multislot configuration
97-942	R97	CR 04.08 A251 r1 Mobile assisted frequency allocation
97-940	R96	CR 08.08 A090 Correction of Circuit Pool Description
97-940	R97	CR 08.08 A092 r1 Clean-up for WI Improved Transcoder Handling
97-639	R97	CR 08.58 A022 r1 Mobile assisted frequency allocation
97-1002	R97	CR 05.01 A010 r1 Introduction of GPRS
97-1003	R97	CR 05.02 A020 r1 Corrections and clarifications to GPRS
97-1003	R97	CR 05.02 A021 Multislot classes for GPRS
97-1003	R97	CR 05.02 A022 r1 System information for GPRS on BCCH
97-1003	R97	CR 05.08-A023 r2 Alignment of 51- and 52-multiframe PCCCH
97-1004	2	CR 05. 05 A058 r1 Improvement to DCS MS sensitivity
97-1004	R97	CR 05.05 A059 r1 Improvement to DCS MS sensitivity
97-1004	R97	CR 05.05 A063 r2 Reference performance for GPRS
97-1005	2	CR 05.08 A039 Allowed time to decode BCCH data
97-1005	R96	CR 05.08 A040 Allowed time to decode BCCH data
97-1005	R96	CR 05.08 A041 Dual band MS cell re-selection enhancement
97-1005	R97	CR 05.08 A042 r3 Mobile Assisted Frequency Allocation
97-1005	R97	CR 05.08 A043 Channel Quality Report in GPRS
97-1006	R97	CR 05.50 A005 r1 Introduction of simulation results for GPRS receiver performance

All CRs in the table were approved by SMG#24 except CR 05.08-A042r3.

CR A042r2 to GSM 05.08 R97 in Tdoc SMG 1144/97 was approved by SMG#24.

GSM 04.14, *Individual equipment type requirements and interworking Special conformance testing functions* in Tdoc SMG 1018/97 was presented to SMG#24 for information.

General Packet Radio Services: The following specifications were approved: GSM 08.14 in Tdoc SMG 943/97, GSM 08.16 in Tdoc SMG 944/97 and GSM 08.18 in Tdoc SMG 945/97. They should be published after SMG#25.

Improved Data Rates through Optimised Modulation: Based on the feasibility study report on Improved Data Rates through Optimised Modulation (EDGE), SMG are asked to decide whether to continue the work on this work item or not (Tdoc SMG 1015/97 and Tdoc SMG 1016/97). A new linear high level modulation scheme together with improved link layer management, symbol rate 361 kbit/s has been evaluated for use in

- GPRS (EGPRS): 11.2 - 65.2 kbit/s in one timeslot paid by 3-4 dB loss of sensitivity and 6-7 dB loss of C/I performance; the scheme could allow 50% of users to double their data rate if the present cell planning is re-used. If that is not acceptable a new cell planning would be necessary.
- Circuit switched data (ECSD) for transparent and non-transparent service

A time schedule could be feasible allowing the completion of EDGE specifications mid 1999. Quarter Amplitude Modulation (QAM) is actually used.

An RF amplifier in the mobile station would require a certain linearity, but this is dependent of the finally selected modulation scheme and the roll-out. Simulations are shown on page 17 of Tdoc SMG 1016/97. The power amplifier is certainly one of the topics to be regarded if the WI is accepted. It is understood that transceivers with the new and old modulation scheme be mixed.

It was clarified that the feasibility study concentrated on radio aspects. Service and network aspects would have to be studied.

Phil Gilchrist presented Tdoc SMG 1107/97, *Enhanced Data rates for GSM Evolution (EDGE),* source Motorola. It argues that EDGE should concentrate on the GPRS application, mainly in order to avoid service diversification and because the ISDN based core networks of today don't offer high rate circuit switched data. Niels Peter Skov Andersen commented that the radio access lower layers should be as generic as possible. Paul Simmons pointed out that also the switching part of the BSS would need modifications for the switching part in the BSS.

Johan Sköld presented a WID for EDGE in Tdoc SMG 996/97, source Ericsson, Nokia and Airtouch.

Dirk Weiler presented Tdoc SMG 1068/97, *Handling of Work Item 184 (Improved Data Rates through Optimised Modulation),* source DeTeMobil, Mannesmann, Bosch, Sony, Siemens proposing proposed that SMG2 should perform a comparative study with the UTRA radio interface.

SMG#24 decided to split the work item into a part on GSM radio access and a work item on Core network aspects; synergies with other work items, such as GPRS, UTRA and AMR, should be considered in the work on the EDGE-BSS work item. A priority of application of EDGE to GPRS was suggested; Niels Peter Skov Andersen stated that still a Circuit oriented radio access can be combined for fixed network packet and vice versa.

Updated WIDs in Tdoc SMG 1147/97 and Tdoc SMG 1148/97 were approved by SMG#24.

Tdoc SMG 1162/97 was noted: Nokia will host a workshop on EDGE in the first quarter of 1998 (planned to be on the 16-17 February, 1998 in Helsinki).

Capacity of the BCCH: As asked by SMG, SMG2 reported on ways to extent the capacity of the BCCH. The answer is found in Annex IV of Tdoc SMG 1017/97. The method identified is to exploit phase 1 layer 2 error handling. As experience has shown that implementations have deviated from parts of error handling, SMG2 will invite GSM-MoU TWG for assistance regarding the checking of the compatibility of existing mobile stations in relation to the proposals for BCCH evolution; SMG7 should assist by providing the necessary test descriptions.

SMG is invited note:

- SMG2 is going to study general means of improving cell re-selection (Annex II).
- SMG2's attempt together with the PT to prioritise the work of the PT (Annex I). See section 3.2 (PT SMG status report).
- SMG2 is considering the introduction of packet radio channels as a step of platform for the radio interface. Consequently the handling of Release '97 for the radio part should use the mechanism foreseen in the version management for a new platform.

5.3 SMG3

Michel Mouly presented Tdoc SMG 1100/97, the *SMG3 status report.*

There are still urgent needs for hosts for SMG3 and its subgroups. Fred Hillebrand and Michel Mouly will send a letter asking relevant companies for hosting of SMG3 (subgroup) meetings.

AP PT SMG To prepare a letter asking relevant companies for hosting of SMG3 (subgroup) meetings.

CAMEL Phase 2: CR 03.78-A008r8 on CAMEL Phase 2 Stage 2 in Tdoc SMG 909/97: Work is ongoing, the CR was presented for information to allow monitoring of the progress in CAMEL phase 2.

GSM 09.60 GPRS Tunnelling Protocol (GTP) across the Gn and GPRS Interface in Tdoc SMG 910/97, CR in Tdoc SMG 911/97: approved by SMG#24.

Tdoc SMG 912/97: two CRs for the introduction of Shared Inter-Working Function (SIWF), completing the work of SMG3 on SIWF. The CRs were approved by SMG#24. SMG#24 confirmed the completion of SMG3 work on work item SIWF.

Tdoc SMG 913/97: Camel phase 1 and SOR: Change requests for R96. All approved by SMG#24.

Specification SPS 03052-1, *INAP Protocol specification for CAMEL Phase 1* and SPS 03052-2, *INAP PICS for SSF for CAMEL Phase 1* in Tdoc SMG 914/97: Both specifications were

approved by SPS. As foreseen in the subcontract SMG-SPS, they were presented for approval at SMG. SMG#24 approved the specification.

CRs in Tdoc SMG 915/97 were approved by SMG#24.

Tdoc SMG 916/97, GSM 10.78, *CAMEL Project scheduling and open issues version 1.5.0* was approved by SMG#24 as an excellent example of project monitoring specification.

Tdoc SMG 917/97, Change requests for R96. One of the CRs fulfils a requirement of SMG#23 to make contest free monitoring of MAP interfaces possible.

GSM 03.53, *TFO stage 2* in Tdoc SMG 929/97, was presented for information to SMG#24.

PI Rémi Thomas, William Navarro (Nortel)	To clarify a question on Tdoc SMG 929/97 regarding handover.

Tdoc SMG 937/97 and Tdoc SMG 938/97 contain many CRs on GPRS (03.60 and 03.64). It was not possible to print out these documents for every delegate. They were available in electronic form and in paper form on request.

SMG#24 approved the CRs in Tdoc SMG 937/97 and Tdoc SMG 938/97. Corrections if necessary could be made by use of change requests for SMG#25. The reason for this extraordinary procedure is to allow the GPRS experts to work immediately after SMG#24 on a stable text.

All CRs in Tdoc SMG 909/97, Tdoc SMG 971/97, Tdoc SMG 986/97, Tdoc SMG 987/97 and Tdoc SMG 988/97 were approved by SMG#24.

Group/broadcast calls over more than one MSC: CRs to ASCI phase 2 in Tdoc SMG 989/97 were approved by SMG#24. This completes the function to allow group/broadcast calls over more than one MSC.

Tdoc SMG 990/97, a set of CRs on 04.65, was approved by SMG#24.

CR 04.08-A249r2 on Clarification on audio connection (Phase 2) in Tdoc SMG 991/97 was approved by SMG#24. A corresponding CR in Tdoc SMG 986/97 had also been approved by SMG#24.

CRs for R95 and R96 on GSM 03.81 for handling of number parameters related to line identification services in Tdoc SMG 991/97 were approved by SMG#24.

CR 04.88-A004 on Call Barring after reconnection (Release 97-CAMEL) in Tdoc SMG 1047/97 was approved by SMG#24.

Tdoc SMG 1048/97 had been approved already by SMG#24.

A CR to 03.02 on GPRS in Tdoc SMG 1086/97 was approved by SMG#24.

Status report Annex A, a liaison statement from SMG3 WPC on version management: see section 5.12.3.

Status report Annex B: SMG3 informs SMG about limitations of the proposed solution for filtering Short Messages at the HLR. SMG decided that SMG3 should continue their work with

that solution as a working assumption, that means, members could still propose a complete solution with less limitations to SMG3.

CNAP stage 2: It was clarified that the solution described is only applicable in certain regions. Alternative solutions may be specified when needed.

CRs on CAMEL (phase 1) R96 A003 and A010 to GSM 03.78 v.5.1.0, A102 to GSM 09.02 v.5.6.0, A013, A015, A016, A018 to GSM 09.78 v.5.1.0 in Tdoc SMG 888/97 were approved.

5.4 SMG4

Non strategic Change requests:

Change Requests for **HSCSD and 14.4 kbit/**s in Tdoc SMG 921/97, for 03.40 on SMS screening and SIM toolkit security headers in Tdoc SMG 918/97, for R96 corrections on Cell Broadcast SMS in Tdoc SMG 919/97 were approved by SMG#24.

Tdoc SMG 920/97 contains change requests on shared interworking function. They were approved by SMG#24. The SIWF work item is considered as completed as the stage 3 changes of SMG3 were approved as well.

Various corrections to GSM 07.05 and 07.07 in Tdoc SMG 922/97 were approved.

A CR to GSM 07.60 on GPRS in Tdoc SMG 1030/97 was approved.

Cordless Telephony System: SMG4 informs SMG that SMS is not addressed in the CTS work, see liaison statement to SMG, SMG1 and SMG9 in Tdoc SMG 1050/97. Robert Vass raised concerns on the proposed inclusion of SMS in CTS phase 1, referring to Tdoc SMG 1126/97, and proposed to forward the issue to SMG 1. On more general principles, Alistair Urie presented Tdoc SMG 1143/97, requesting a harmonization of services supported by CTS with the GSM services. This more general request was forwarded to SMG1 for further study as well as the concerns raised by SMG4.

Mobile Station Application Execution Environment: Stefan Aprath presented Tdoc SMG 1032/97, the initial version of GSM 10.57, *Project scheduling and open issues: Mobile Station Execution Environment (MExE).* The document is the first outline of the project schedule for that work item.

A proposed liaison statement to MNCRS (a US centred group developing JAVA), *Definition of Java enabled GSM terminal*, in Tdoc SMG 1050/97 was approved, but SMG wants more information on that group, participation conditions, structure, deliverables and so on. SMG4 is mandated to liaise directly with MNCRS.

AP Stefan Aprath	To provide the requested information on MNCRS to SMG.

Liaison with WAP: As a response to the letter from SMG (Tdoc SMG 879/97) to the WAP consortium a liaison statement from WAP in Tdoc SMG 1101/97 had been received. It was presented by Timo Ali-Vemos.

A proposed LS: *Response to LS from WAP Consortium* in Tdoc SMG 1114/97, Source: Alcatel, Nortel, Siemens, was presented by Brian Day. It was approved.

Another LS in to WAP Consortium in Tdoc SMG 1032/97, proposed by SMG4, was postponed either to SMG#24bis, or, if SMG#24bis is not convened or doesn't treat the issue, to SMG4.

SMG4 was mandated to liaise with WAP on condition of open participation and access to their documents. Robert Vass indicated the intention of the WAP consortium to make those provisions in January 1998.

Infra red interface in the MS: A proposed liaison statement on MS/TE infra red interface to the IrDA special interest group in Tdoc SMG 1040/97 was approved by SMG#24.

Tdoc SMG 1050/97 proposes that CRs agreed for R97 are introduced for R96. Approved.

Strategic CRs

A CR in Tdoc SMG 1029/97 to GSM 07.08 on GSM API was approved by SMG#24; the voting process on the specification is to be continued.

GSM 07.10, *Multiplexing protocol*, in Tdoc SMG 1031/97: there were objections to perform editorial improvements before approval. Rémi Thomas presented Tdoc SMG 1080/97, source France Telecom, stating that the specification is based on proposals from two manufacturers. France Télécom would prefer to change the specification to design a single protocol with a choice between two options; also it is criticised that the specification had not been presented to SMG for information. Peter Neumann presented Tdoc SMG 1134/97, source Ericsson and Siemens, proposing:

1. "in the first place is to approve GSM TS 07.10 as it is proposed by SMG4 *and*, if found suitable, to encourage further extension of multi-mode protocol sets, allowing operation on any physical bearer, like infrared links.

   Should this proposal not be found as acceptable due to the remaining containment of several protocols in 07.10, then another proposal

2. in the second place is to remove the HDLC mode from 07.10, leaving the basic mode, thereby allowing simple implementations based on standards, and not on proprietary solutions. In addition we support the development of *another* standard for an advanced protocol, exceeding the capabilities of the HDLC mode and suited for applications carried on any bearer, including half duplex infrared links.

In both cases we strongly recommend that the specifications are not remitted back to SMG4, but that SMG#24 endorse the technical content of the specification, however allows editorial restructuring by the rapporteur of the text to accomplish a level of integrity acceptable to all parties, to be presented and approved at SMG#25."

Vodafone said that they would oppose any suggestion to remove the HDLC mode and would prefer to remove the Basic Mode if removal of one or other mode was deemed necessary.

The SMG4 Chairman's view is that the changes proposed are editorial, and that there were no suggestions that the technical content of the specification should be changed.

The meeting was made the proposal to

- approve the specification or
- send it back to SMG4

A show of hands showed 15 for the first, five for the second option. A possible vote in SMG#25 will be indicated. This might need to consider removal of one or other of the two Modes if SMG4 is unable to merge them or otherwise amend GSM 07.10 editorially to the satisfaction of SMG#25.

AP	A possible vote in SMG#25 will be indicated in the agenda.

As the objections were sustained, it was concluded that the functional contents were approved by SMG#24, that the technical contents of the document were accepted by a broad majority in SMG#24 and that 07.10 is considered as having been presented for information to SMG#24.

A CR in Tdoc SMG 1031/97 was approved by SMG#24.

For version handling, see section 5.12.3.

5.5 T1P1 WORK ITEMS

The revised work plan for PCS 1900 Service Provider Number Portability in Tdoc SMG 1084/97 was noted.

T1P1 Harmonization Workplan: The *T1P1 Harmonization Workplan* in Tdoc SMG 1083/97 was endorsed.

Mel Woinsky presented Tdoc SMG 1082/97 on the need for a small process refinement which would specify that T1P1 would report to the SMG plenary on CR's and related documents for which it is the designated lead, after reaching endorsement of the appropriate STCs. In response, SMG#24 approved a Liaison Statement to T1P1 in Tdoc SMG 1145/97, *Response to Letter on Process Refinements*: SMG#24 agrees that T1P1.5 present their technical work to SMG; it should be visible that the items have been agreed in the relevant STCs as well.

SMG#24 agrees that T1P1.5 present their technical work to SMG; it should be visible that the items have been agreed in the relevant STCs as well.

5.6 SMG6

Gisela Hertel, SMG6 Chair, presented Tdoc SMG 890/97, Network and Service Management Requirements for UMTS (UMTS 21.06) for information. It is planned for approval at SMG#25.

Iñaki Cabrera, Chairman of TMN WG5, stated that TMN WG5 sees no need to modify the content of specification UMTS 21.06.

Iñaki Cabrera presented Tdoc SMG 1089/97 and Tdoc SMG 1090/97.

Tdoc SMG 1089/97 informs that

- TMN5 has appointed a liaison officer to EP SMG (Iñaki Cabrera, Airtel Móvil SA)
- TMN5 will appoint a liaison officer to SMG6
- TMN5 invites SMG6 to follow a similar approach, participating in TMN5, TC TMN and TC TMN Management Team Meetings.

Fred Hillebrand clarified that there is no agreement between SMG and TMN(5) about joint meetings or mutual participations between SMG6 and TMN5, because such things are in the autonomy of SMG6. He also clarified that whether SMG6 sends liaison persons to TMN5 or not is a decision of SMG6.

Tdoc SMG 1090/97 informs about the TMN5 intention to adopt the SMG6 specification UMTS 21.06 and UMTS 32.01 and to approve them as TMN specifications arguing this to be in line with the ETSI Board decision on responsibility split between TMN and SMG.

The SMG6 Chair informed SMG6 having difficulties to understand an intention to take over and publish under one's name specifications from a group which has done the work.

Ian Doig explained that TMN cannot approve UMTS 21.06 because it is in the (ETSI approved) work program of SMG.

SMG commented the decision quoted in the document ("Until the transfer by the ETSI Board of UMTS network management from SMG6 to TC TMN") not to be correctly quoted.

It was decided not to discuss in SMG papers in the SMG6 area which were not presented to SMG6. SMG expects SMG6 to continue their work program.

5.7 SMG7

Rémi Thomas presented the SMG7 status report in Tdoc SMG 923/97.

All CRs in Tdoc SMG 924/97 and Tdoc SMG 925/97 (Corrections of signalling tests, addition of a test on L2 pseudo-length), in Tdoc SMG 926/97 and Tdoc SMG 927/97 (Corrections of RF/non-signalling tests), were approved.

The CRs to TBRs on EFR are approved but on hold; the CRs to TBRs to change the reference versions of 11.10 are postponed.

CR TBR31-A004 and CR TBR19-A010 in Tdoc SMG 928/97, both titled *Inclusion of HSCSD Multislot test cases*, propose, among other changes, a replacement of the reference to GSM 11.10 phase 2 by GSM 11.10 phase 2+. The consequences of such an action require further analysis, therefore both Change request were postponed.

CR TBR19-A009 and CR TBR31-A003 in Tdoc SMG 928/97, proposing a reduction of test repetitions, were approved but put on hold. This is in order to fulfil a recent request from the European Commission (EC) to have a common planning between ETSI and the EC on updating TBRs. A meeting with Mark Bogers, DGXIII of the EC, on type approval matters is planned for early February 1998.

Input to ACTE: On request of EC DGXIII, an input to ACTE justifying updates for TBR 19 and TBR 31 in Tdoc SMG 1033/97 has been provided by PT SMG. The document was presented for information.

Phase 2+ mobile station testing requirements outline: Tdoc SMG 1034/97 outlines the MS Phase 2+ testing requirements, it is based upon the SMG 10.00 specification and the Phase 2+ Work items database. This document is indicative for the moment, its purpose is to provide a first estimate of Phase 2+ impact on the Type Approval and MS test specification processes. It was presented for information. SMG#24 noted the document.

RLP testing: CRs in Tdoc SMG 1122/97 and Tdoc SMG 1123/97 aim to remove problems in certain RLP tests due to which the tests were not implementable and hence declared "special condition tests" (this means that a manufacturer conformance declaration replaces the tests). These CRs were approved. Some difficulties to gather a joint expertise of SMG4 and SMG7 experts on this matter were reported. If necessary a session dedicated to RLP testing can be organised during the next signalling sub group meeting to be held on January 12-13, 1998 in Paris, SMG4 experts are welcome at this meeting.

TTCN signalling test cases: SMG#24 endorsed SMG7's proposal:

- Anite can bring to SMG7 TTCN translations of HSCSD signalling test cases,
- SMG7 will review these translations if there is nothing more urgent to be tackled,
- once such TTCN translations would be agreed by SMG7, it will be up to SMG to decide whether the relevant ATSs are informative or normative.

SMG7 asked SMG to take care of the definition of a GPRS regulatory framework. Delegates are asked to consider the issue so that SMG#25 can cause the necessary actions.

Comments of SMG7 on version management: See section 5.12.3.

5.8 SMG8

SMG8 didn't request any decisions from SMG#24.

5.9 SMG9

All CRs in Tdoc SMG 886/97 were approved by SMG#24. Non strategic CR A044 to GSM 11.14, missing in the paper version of Tdoc SMG 886/97, was also approved.

Tdoc SMG 886/97 does wrongly indicate R97 for CR 11.11-A053, it is R96.

GPRS: What shall the Mobile Equipment (ME) do if the SIM doesn't support GPRS (that is, the GPRS security related information)? A proposal is discussed at present in SMG9 to allow

the ME use of security relevant information stored in the ME, if the IMSI stored in the ME and SIM are equal. See Tdoc SMG 889/97 for information.

Klaus Vedder informed that on 20-23 January SMG9 will convene the 50th SIMEG/SMG9 meeting in Sophia Antipolis.

R97 is planned in SMG9 for SMG#25.

Auxiliary device access using SIM application toolkit: Tdoc SMG 887/97, proposed 98 work item description for *Auxiliary device access using SIM application toolkit*, was presented. Robert Vass and Timo Ali-Vehmas argued against acceptance of the work item. SMG#24 noted the proposal as an interesting one and asked SMG9 to discuss it further and come with a proposal back to SMG#25.

Note: 02.17 and 11.11 already foresees two-SIM ME.

GSM-API for SIM Toolkit applications based on JAVA: Tdoc SMG 1059/97, *GSM-API for SIM Toolkit applications based on JAVA*, and a corresponding WID in Tdoc SMG 1063/97, both source T-Mobil, were presented by Hans Hauser. SMG#24 approved the WI in principle, SMG9 will take the lead and will look for all necessary information exchange and discussion with other groups. SMG9 will present a revised WID to SMG#25.

5.10 SMG10

SMG10 didn't request any decisions from SMG#24.

5.11 SMG11

Phil Gaskell presented the contentious issues requiring decisions by SMG#24.

Requirements and Objectives of AMR: Tdoc SMG 953/97, *AMR performance requirements (AMR-3)*, presents performance requirements and objectives for the speech quality of the GSM AMR system under static and dynamic test conditions.

Rémi Thomas presented Tdoc SMG 1105/97, *Some comments on AMR*, source France Télécom, proposing that the AMR performance requirements for dynamic conditions are set to guarantee that the AMR has really an improved robustness compared to the EFR, especially in bad channel conditions.

William Navarro argued on behalf of Nortel, no definition of dynamic conditions to be known yet. He explained that Nortel has no problem with the proposals for static conditions, but feels that further work on the dynamic conditions are necessary.

Tdoc SMG 1096/97, AMR performances specifications, source BellSouth, was presented by Alain Ohana. The document recommends as the primary objective to provide the best possible performances in full rate and half rate modes for the ideal case under static conditions, and to request that in half rate mode, candidates to aim at EFR performances. He proposed SMG#24 to accept Tdoc SMG 953/97 as far as the static conditions are concerned; for the dynamic conditions to wait for the input from SMG2 WPB (promised for March 1998).

Tdoc SMG 953/97 was approved. For the purpose of the selection phase SMG11 was mandated by SMG to elaborate the performance requirements for dynamic conditions taking into account the proposed scenarios from SMG2 WPB when the scenarios themselves will become available.

The status of the study phase for wideband AMR was presented. The completion of the study phase is expected by June 1998.

CRs in Tdoc SMG 949/97, Tdoc SMG 950/97 and Tdoc SMG 952/97 were approved by SMG#24.

Inband Tandem Free Operation (TFO) of Speech Codecs; Service Description; Stage 3 in Tdoc SMG 1007/97 was presented for information to SMG#24.

5.12 GSM PROGRAM MANAGEMENT

5.12.1 Release 97

SMG#24 agreed to complete Release 97 at SMG#25. GSM and UMTS program management will be on the agenda of SMG#24bis.

5.12.2 New and completed work items

Improved Data Rates through Optimised Modulation (EDGE, split into EDGE-NSS and EDGE-BSS): WIDs in Tdoc SMG 1147/97 and Tdoc SMG 1148/97 were approved by SMG#24. Cf. section 5.2.

GSM-API for SIM Toolkit applications based on JAVA: SMG#24 approved the WI in principle, SMG9 will take the lead and will look for all necessary information exchange and discussion with other groups. SMG9 will present a revised WID to SMG#25 based on Tdoc SMG 1063/97. Cf. section 5.9.

Auxiliary device access using SIM application toolkit: SMG#24 noted the proposal of this '98 work item in Tdoc SMG 887/97 as an interesting one and asked SMG9 to discuss it further and come with a proposal back to SMG#25.

Shared Inter-Working Function (SIWF): This work item has been completed at SMG#24, cf. sections 5.3 and 5.4.

5.12.3 Version management

Liaison statements from SMG3 and SMG7 as well as comments from SMG2 and SMG4 on version management were not presented at SMG#24 due to lack of time. However, Tdoc SMG 1135/97, *Report on implementation of Version Management decided by SMG#23 version 6.0*, source PT SMG, intends to take all comments received from STCs and experts into account.

SMG#24 decided to apply Tdoc SMG 1135/97 until a review in SMG#25. The document elaborates the two options to develop a specification, either in a new platform

(and hence a new major version) or by indication of all options in the present major version 5.

6 ANY OTHER BUSINESS

6.1 SMG#24BIS

Fred Hillebrand presented Tdoc SMG 1138/97, the *DRAFT Voting procedure for UTRA,* source SMG Co-ordination Group.

It was asked what the further proceeding in case of simple majorities could be.

It was clarified that SMG can't force a concept group to withdraw; there is also nobody entitled to withdraw a concept group.

It was clarified that there is no rule requesting a representative of a member to be an employee of that member. As the voting by proxy is explicitly forbidden in section 1.7.1.1 of the ETSI Technical Working Procedures.

Mannesmann Mobilfunk stated a sustained opposition against using one vote per ETSI member for the voting for SMG#24bis (cf. ETSI Technical Working Procedures sub-clause 1.7.1).

Modifications of Tdoc SMG 1138/97:

- Third paragraph of section 1: replace "SMG2" by "SMG".
- In the heading of 3.4, delete ", no proxy voting".
- In section 3.4, delete sentence "Voting by proxy will not be permitted."
- Revised section 3.5 to reflect the use of weighted voting

With these modifications, Tdoc SMG 1138/97 was approved by SMG#24. The revised version is in Tdoc SMG 1157/97.

Agenda of SMG#24bis: Fred Hillebrand presented Tdoc SMG 1137/97, the *DRAFT agenda of SMG#24bis*. The following modification were agreed:

- Replace "Future Program report" by "Report". Agenda Item 4 to become the second sub-item of Agenda Item 5.
- Add location, beginning and end of the meeting (Paris, 28th January, 1998, 9:00h, end 29th January, 16:00h).

With these modifications, Tdoc SMG 1137/97 was approved. The revised version is in Tdoc SMG 1156/97.

7 NEXT MEETINGS

SMG's plenary and Co-ordination Group dates 1998/1999 in Tdoc SMG 1155/97 (a revision of Tdoc SMG 1136/97) now foresee three (ordinary) plenaries a year, because otherwise STCs wouldn't have sufficient time for consolidated outputs between the third and fourth meeting in the year. Tdoc SMG 1155/97 was approved, the information is repeated below:

Meeting No.	Plenary Date	Plenary Venue	SMG Co-ord. Group
SMG#24bis	28-29 Jan 98	Paris, Alcatel	23 Jan 98 Frankfurt (Steigenberger Airport Hotel)
SMG #25	16 - 20 March 98	Warsaw, Poland	5 - 6 March 98 London, Vodafone
SMG #26	22 - 26 June 98	Finland	11-12 June 98 Slough, Cellnet
SMG #27	12 - 16 Oct. 98	Praha, Czech Republic	1 - 2 Oct. 98 Dusseldorf
SMG#28	8 - 12 February 99		26 - 27 January 99
SMG#29	21 - 25 June 99		8 - June 99 Stockholm, Ericsson
SMG#30	18 - 22 October 99		5 - 6 October 99

Note : In order to finalise documents, produce electronic versions and prepare Plenaries properly, STCs should not meet during the two weeks before every Plenary.

Italtel offered to host SMG#28 (or SMG#29).

Annex 1: List of participants

Annex 2: Status of CRs presented to the meeting

Annex 3: List of documents

Annex 4: Liaison statements

Annex 5: Status of SMG specifications after SMG#24

Annex 6: Roadmap for the finalisation of GSM phase 2+ work items - version 24.0

ANNEX 7: SYSTEM description Summaries of the Concept groups (Tdoc SMG 894/97, Tdoc SMG 897/97, Tdoc SMG 900/97, Tdoc SMG 903/97)

ANNEX 8: SMG-CG reports

ANNEX 9: PT SMG STATUS REPORT AT SMG#24

ANNEX 10: Tdoc SMG 8/98, IMT 2000 Co-ordination (Meetings in Japan, February 1998)

COMPLETE LIST OF SMG CONTACT PERSONS AND PARTICIPANTS TO SMG#24

Sorted by Name

Name: **-STF12-**
Company: ETSI
Address: 650 Route des Lucioles

06921 SOPHIA ANTIPOLIS CEDEX
FRANCE

Tel 1: +33 4 9294 4262
Tel 2:
Mob :
Fax 1: +33 4 93 65 28 17
Fax 2:

Name: **ABBOR Anders**
Company: ERICSSON RADIO SYSTEMS AB
Address: Torshamnsgatan 23

164 80 STOCKHOLM
SWEDEN
E-Mail Internet: anders.abbor@era.ericsson.se

Tel 1: +46 8 757 1328
Tel 2:
Mob :
Fax 1: +46 8 404 6886
Fax 2:

Name: **ABDESSELEM Ouelid**
Company: MOTOROLA SPS
Address: Avenue du Général Eisenhower
Le Miral BP 1029
31023 TOULOUSE CEDEX
FRANCE
E-Mail Internet: r31529@email.sps.mot.com

Tel 1: +33 5 61 19 98 75
Tel 2:
Mob :
Fax 1: +33 5 61 19 99 58
Fax 2:

Name: **ABDURRAHMAN Alfinesik**
Company: TÜRK TELEKOM
Address: AR-GE
Ahlatlibel
06095 ANKARA
TURKEY

Tel 1: +90 312 555 6700
Tel 2: +90 312 555 6701
Mob :
Fax 1: +90 312 555 6705
Fax 2:

Name: **ADAMS Peter.M.**
Company: BRITISH TELECOM
Address: Room 2-02, Bibb Way
IPSWICH
SUFFOLK IP1 2EQ
UNITED KINGDOM
E-Mail Internet: adamspm@boat.bt.com

Tel 1: +44 1 473 227 684
Tel 2:
Mob : +44 802 471 234
Fax 1: +44 1 473 227 884
Fax 2:

Name: **AHAVA Heikki**
Company: NOKIA CORPORATION
Address: Nokia Mobile Phones UK
PO Box 100
00045 NOKIA GROUP
FINLAND
E-Mail Internet: heikki.ahava@nmp.nokia.com

Tel 1: +358 10 505 5774
Tel 2:
Mob : +358 50 550 4488
Fax 1: +358 10 505 5707
Fax 2:

Name:	**AKAR Michael**	**Tel 1:**	+1 619 992 1664
Company:	SONY WTC	**Tel 2:**	
Address:	4243 Federman Lane	**Mob :**	
		Fax 1:	+1 619 657 4334
	SAN DIEGO, CA 92130	**Fax 2:**	
	UNITED STATES		
E-Mail Internet:	akarm@wtc.sel.sony.com		

Name:	**ALARD Michel**	**Tel 1:**	+33 1 4629 0800
Company:	WAVECOM	**Tel 2:**	
Address:	39 Rue du Gouverneur General Eboué	**Mob :**	+33 0734 1064
		Fax 1:	+33 1 4629 0808
	92130 ISSY-LES-MOULINEAUX	**Fax 2:**	
	FRANCE		
E-Mail Internet:	michel.alard@wavecom.fr		

Name:	**ALELUIA Jorge**	**Tel 1:**	+351 1 791 4400
Company:	TMN	**Tel 2:**	
Address:	TELECOMUNICACOES MOVEIS NACIONAIS	**Mob :**	
	Av.5 de Outubro, 208	**Fax 1:**	+351 1 791 4514
	1050 LISBOA	**Fax 2:**	
	PORTUGAL		
E-Mail Internet:	Jaleluia.tmn@telepac.pt		

Name:	**ALI-VEHMAS Timo**	**Tel 1:**	+358 10 505 4317
Company:	NOKIA MOBILE PHONES (UK) LTD	**Tel 2:**	
Address:	PL 86	**Mob :**	+358 50 555 0760
		Fax 1:	+358 10 505 5161
	24101 SALO	**Fax 2:**	
	FINLAND		
E-Mail Internet:	timo.ali-vehmas@nmp.nokia.com		

Name:	**ALLOUL Marc**	**Tel 1:**	+33 1 47 46 56 82
Company:	SCHLUMBERGER	**Tel 2:**	
Address:	50 avenue Jean-Jaures	**Mob :**	
	BP 620-12	**Fax 1:**	+33 1 47 46 68 26
	92542 MONTROUGE	**Fax 2:**	
	FRANCE		
E-Mail Internet:	alloul@montrouge.ts.slb.com		

Name:	**ALOS Rafael**	**Tel 1:**	+33 1 30 73 70 97
Company:	SAGEM	**Tel 2:**	
Address:	BP 8448	**Mob :**	
		Fax 1:	+33 1 30 73 56 72
	95807 CERGY-PONTOISE CEDEX	**Fax 2:**	
	FRANCE		

Name:	**ALVAREZ Ignacio**	**Tel 1:**	+34 1 330 5581
Company:	ALCATEL ESPANA	**Tel 2:**	
Address:	Mendez Alvaro 9	**Mob :**	
		Fax 1:	+34 1 3305693
	28045 MADRID	**Fax 2:**	
	SPAIN		
E-Mail Internet:	ialvarez@alcatel.es		

Name:	**ALVAREZ SANCHEZ Joaquim**	**Tel 1:**	+34 1 514 7235
Company:	CTE INTERNATIONAL	**Tel 2:**	
Address:	Via R. Sevardi N. 7	**Mob :**	+34 07 711 634
		Fax 1:	+34 1 514 7034
	42100 REGGIO EMILIA	**Fax 2:**	
	ITALY		
E-Mail Internet:	jasanchez@ssa.siemens.es		

Name:	**AMIR-ALIKHANI Hamid**	**Tel 1:**	+49 711 5858 404
Company:	SONY TELECOM	**Tel 2:**	
Address:	Stuttgart Strasse 106	**Mob :**	
		Fax 1:	+49 711 583 185
	70736 FELLBACH	**Fax 2:**	
	GERMANY		
E-Mail Internet:	alikhani@fb.sony.de		

Name:	**AMMER Gerhard**	**Tel 1:**	+49 89 95086 312
Company:	LUCENT TECHNOLOGIES	**Tel 2:**	
Address:	Medien Allee 6	**Mob :**	+49 172 976 7892
		Fax 1:	+49 89 95086 155
	85774 UNTERFÖLHRING	**Fax 2:**	
	GERMANY		
E-Mail Internet:	vdga@micro.lucent.com		

Name:	**ANDERSEN Niels Peter Skov**	**Tel 1:**	+45 4358 6378
Company:	TELE DANMARK MOBIL A/S	**Tel 2:**	
Address:	Spotorno Allé 12	**Mob :**	+45 4018 4793
		Fax 1:	+45 43 71 03 82
	2630 TAASTRUP	**Fax 2:**	mob +45 40 299442
	DENMARK		
E-Mail Internet:	npa@tdm.dk		

Name:	**ANDERSEN Peter Claus**	**Tel 1:**	+45 9936 7230
Company:	DANSK MOBILTELEFON A/S	**Tel 2:**	
Address:	SONOFON	**Mob :**	+45 4058 7230
	Skelagervej 1/PO Box 330	**Fax 1:**	+45 9936 7070
	9100 AALBORG	**Fax 2:**	+45 9936 7224
	DENMARK		
E-Mail Internet:	pca@dmt.sonofon.dk		

Name:	**ANDRIEU Dominique**	**Tel 1:**	+33 4 93 00 33 12
Company:	ROCKWELL TELECOMMUNICATIONS	**Tel 2:**	
Address:	Les Taissounières B.1	**Mob :**	+33 6 0762 0797
	BP 283	**Fax 1:**	+33 4 93 00 32 01
	06905 SOPHIA ANTIPOLIS CDX	**Fax 2:**	
	FRANCE		
E-Mail Internet:	dominique.andrieu@nb.rockwell.com		

Name:	**ANFILOFIEV Sergei**	**Tel 1:**	+7 095 368 9127
Company:	ZNIIS	**Tel 2:**	
Address:	Telecommunication Institute, MPT RUSSIA	**Mob :**	+7 095 796 1587

	8,1-St Poezd Perova polya	**Fax 1:**	+7 095 274 0067
	111141 MOSCOW	**Fax 2:**	+7 095 306 4722
	RUSSIA		
E-Mail Internet:	sanfi@zniis.msk.su		

Name:	**ANSALDI Renato**	**Tel 1:**	+39 2 95259 384
Company:	ITALTEL	**Tel 2:**	
Address:	SS 11 Padana Superiore km 158	**Mob :**	
	CASSINA DE PECCHI	**Fax 1:**	+39 2 85259 860
	20060 MILANO	**Fax 2:**	
	ITALY		
E-Mail Internet:	renato.ansaldi@italtel.it		

Name:	**APRATH Stefan**	**Tel 1:**	+33 4 9294 4324
Company:	ETSI/PT SMG	**Tel 2:**	
Address:	650 Route des Lucioles	**Mob :**	+49 172 211 7488
		Fax 1:	+33 4 93 65 28 17
	06921 SOPHIA ANTIPOLIS CEDEX	**Fax 2:**	
	FRANCE		
E-Mail Internet:	stefan.aprath@etsi.fr		
X.400:	c=FR; a=ATLAS; p=ETSI; s=Aprath; g=Stefan		

Name:	**ARROYO-FERNANDEZ Bartolome**	**Tel 1:**	+32 2 296 3592
Company:	EUROPEAN COMMISSION	**Tel 2:**	
Address:	Rue de la Loi 200	**Mob :**	
	BU9 4-11	**Fax 1:**	+32 2 295 0654
	1049 BRUSSELS	**Fax 2:**	
	BELGIUM		
E-Mail Internet:	bar@postman.dg13.cec.be		

Name:	**BAHIA Gurj**	**Tel 1:**	+44 1344 301 883
Company:	KENWOOD ELECTRONICS TECH. EUROPE	**Tel 2:**	+44 1 81 606 4444
Address:	Norcross House, Bagshot Road	**Mob :**	+44 468 436 459
	Bracknell	**Fax 1:**	+44 1344 300 293
	BERKSHIRE RG12 9SW	**Fax 2:**	
	UNITED KINGDOM		
E-Mail Internet:	g.bahia@kenwood-europe.co.uk		

Name:	**BAREHAM Roy**	**Tel 1:**	+44 1 71 378 7141
Company:	CELLNET	**Tel 2:**	
Address:	Hanover House	**Mob :**	
	49-60 Borough Road	**Fax 1:**	+44 1 71 403 2663
	LONDON SE1 1DS	**Fax 2:**	+44 171 357 7573
	UNITED KINGDOM		

Name:	**BARNES David**	**Tel 1:**	+44 1 71 215 1818
Company:	DTI	**Tel 2:**	+44 385 316 985
Address:	151 Buckingham Palace Road	**Mob :**	
	Room 2/126	**Fax 1:**	+44 1 71 931 7194
	LONDON SW1W 9SS	**Fax 2:**	
	UNITED KINGDOM		
E-Mail Internet:	david.barnes@tpdv.dti.gov.uk		

Name:	**BARNES Nigel**	**Tel 1:**	+44 1256 790 169
Company:	MOTOROLA	**Tel 2:**	+44 1256 790 319
Address:	European Standards Sector	**Mob :**	+44 385 318 631
	Midpoint, Alencon Link	**Fax 1:**	+44 1256 790 190
	BASINGSTOKE RG21 7PL	**Fax 2:**	
	UNITED KINGDOM		
E-Mail Internet:	nigelb@euro.csg.mot.com		

Name:	**BARRANCO de San Juan Gema**	**Tel 1:**	+34 1 514 7276
Company:	OTE SPA	**Tel 2:**	
Address:	Via E. Barsanti	**Mob :**	
		Fax 1:	+34 1 514 7022
	FIRENZE	**Fax 2:**	
	ITALY		
E-Mail Internet:	gbarranco@ssa.siemens.es		

Name:	**BASTON Johannes**	**Tel 1:**	+49 211 6503 224
Company:	NEC ELECTRONICS (Europe)	**Tel 2:**	
Address:	OberatherStr 4	**Mob :**	
	PO Box 33 03 28/D-40436	**Fax 1:**	+49 211 6503 344
	40472 DÜSSELDORF	**Fax 2:**	+49 211 6503 6224
	GERMANY		
E-Mail Internet:	bastonj@ee.nec.de		

Name:	**BAYIZ Yavuz**	**Tel 1:**	+90 312 385 1900
Company:	ASELSAN AS	**Tel 2:**	
Address:	PO Box 101	**Mob :**	
	Yenimahalle	**Fax 1:**	+90 312 354 1679
	06172 ANKARA	**Fax 2:**	+90 312 354 1302
	TURKEY		

Name:	**BECERRIL CHAMORRO Maria**	**Tel 1:**	+34 1 514 7255
Company:	SIEMENS SA	**Tel 2:**	
Address:	Ronda de Europa 5	**Mob :**	+34 70 765 130
		Fax 1:	+34 1 514 7034
	MADRID	**Fax 2:**	
	SPAIN		
E-Mail Internet:	mabecerril@ssa.siemens.es		

Name:	**BEIJER Thomas**	**Tel 1:**	+46 8 707 47 34
Company:	TELIA MOBITEL AB	**Tel 2:**	
Address:		**Mob :**	+46 70 562 93 58
		Fax 1:	+46 8 707 5604
	13680 HANINGE	**Fax 2:**	
	SWEDEN		
E-Mail Internet:	tbr@hk.mobitel.telia.se		

Name:	**BELL Andy**	**Tel 1:**	+44 118 965 4675
Company:	NEC TECHNOLOGIES (UK) LTD	**Tel 2:**	
Address:	Level 3, the Imperium	**Mob :**	+44 370 951326
	Imperial Way	**Fax 1:**	+44 118 925 7191
	READING, BERKSHIRE RG2 0TD	**Fax 2:**	
	UNITED KINGDOM		
E-Mail Internet:	abell@nectech.co.uk		

Name:	**BENITO CORTINAS Ignacio**	**Tel 1:**	+34 1 514 7240
Company:	SIEMENS	**Tel 2:**	
Address:	Ronda de Europa 5	**Mob :**	+34 09293436
		Fax 1:	+34 1 514 7034
	MADRID	**Fax 2:**	
	SPAIN		
E-Mail Internet:	ibenito@ssa.siemens.es		

Name:	**BENNINK Rob**	**Tel 1:**	+31 70 343 7105
Company:	KPN/PTT TELECOM	**Tel 2:**	
Address:	PO Box 30150	**Mob :**	
		Fax 1:	+31 70 343 7237
	2500 GD THE HAGUE	**Fax 2:**	
	THE NETHERLANDS		
E-Mail Internet:	rbennink@pi.net		

Name:	**BERGMANN Ansgar**	**Tel 1:**	+33 4 9294 4322
Company:	ETSI/PT SMG	**Tel 2:**	
Address:	650 Route des Lucioles	**Mob :**	+49 171 2000 921
		Fax 1:	+33 4 93 65 28 17
	06921 SOPHIA ANTIPOLIS CEDEX	**Fax 2:**	
	FRANCE		
E-Mail Internet:	ansgar.bergmann@etsi.fr		
X.400:	c=FR; a=ATLAS; p=ETSI; s=Bergmann; g=Ansgar		

Name:	**BERGS Hans-Joachim**	**Tel 1:**	+49 711 821 45776
Company:	ALCATEL SEL	**Tel 2:**	
Address:	Switching System Division	**Mob :**	
	Lorenzstrasse 10	**Fax 1:**	+49 711 821 42013
	70430 STUTTGART	**Fax 2:**	
	GERMANY		
E-Mail Internet:	hj.bergs@stgl.sel.alcatel.de		

Name:	**BERRY Athol**	**Tel 1:**	+49 89 4129 3675
Company:	ROHDE & SCHWARZ GmbH	**Tel 2:**	
Address:	Dept.1SP2 Postfach 801469	**Mob :**	
	Mühldorf Strasse 15	**Fax 1:**	+49 89 4129 3601
	81614 MÜNCHEN	**Fax 2:**	
	GERMANY		
E-Mail Internet:	athol.berry@rsd.de		
X.400:	C=DE;A=DBP;P=RSD;OU=MS4;S=BERRY;G=ATHOL		

Name:	**BISHOP Craig**	**Tel 1:**	+44 1784 428 600
Company:	SAMSUNG ELECTRONIC RESEARCH INS.	**Tel 2:**	
Address:	Communication House	**Mob :**	
	South Street	**Fax 1:**	+44 1784 428 629
	STAINES TW18 4QE	**Fax 2:**	
	UNITED KINGDOM		
E-Mail Internet:	ckbishop@aol.com		

Name:	**BJÖRNDAHL Per**	**Tel 1:**	+46 8 757 2602
Company:	ERICSSON RADIO SYSTEMS AB	**Tel 2:**	
Address:	KI/ERA/LB/SC	**Mob :**	+46 70 591 2602
		Fax 1:	+46 8 404 8040
	16480 STOCKHOLM	**Fax 2:**	
	SWEDEN		
E-Mail Internet:	per.bjorndahl@era.ericsson.se		

Name:	**BLANE Roy**	**Tel 1:**	+44 171 728 1000
Company:	INMARSAT	**Tel 2:**	+44 171 728 1276
Address:	99 City Road	**Mob :**	
		Fax 1:	+44 171 728 1778
	LONDON EC1Y 1AX	**Fax 2:**	+44 171 728 1044
	UNITED KINGDOM		
E-Mail Internet:	roy_blane@inmarsat.org		

Name:	**BLANKENFELD Heinz**	**Tel 1:**	+49 89 722 26655
Company:	SIEMENS AG	**Tel 2:**	
Address:	Hofmannstrasse 51	**Mob :**	+49 171 3403150
		Fax 1:	+49 89 722 27546
	81359 MUNICH	**Fax 2:**	
	GERMANY		
E-Mail Internet:	heinz.blankenfeld@mn.oen.siemens.de		

Name:	**BOCAERT Bruno**	**Tel 1:**	+33 4 9296 11 04
Company:	VLSI TECHNOLOGY	**Tel 2:**	
Address:	505 Route des Lucioles	**Mob :**	+33 6 09 55 50 65
	SOPHIA ANTIPOLIS	**Fax 1:**	+33 4 9296 1101
	06560 VALBONNE	**Fax 2:**	
	FRANCE		
E-Mail Internet:	bruno.bocaert@vlsi.com		

Name:	**BOGERS Marinus**	**Tel 1:**	+32 2 296 8183
Company:	CEC	**Tel 2:**	+32 2 299 0891
Address:	DG XIII/A2 - BU31 4/46	**Mob :**	
	200 Rue de la Loi	**Fax 1:**	+32 2 296 1731
	1049 BRUSSELS	**Fax 2:**	
	BELGIUM		
E-Mail Internet:	marinus.bogers@bxl.dg13.cec.be		

Name:	**BOGNÀR Zoltàn**	**Tel 1:**	+36 1 464 6000
Company:	PANNON GSM	**Tel 2:**	
Address:	Baross u. 165	**Mob :**	
		Fax 1:	+36 1 464 6100
	2040 BUDAÖRS	**Fax 2:**	
	HUNGARY		
E-Mail Internet:	zbognar@pgsm.hu		

Name:	**BÖHNKE Ralf**	**Tel 1:**	+49 711 5858 483
Company:	SONY DEUTSCHLAND GmbH	**Tel 2:**	
Address:	Stuttgarter Strasse 106	**Mob :**	
		Fax 1:	+49 711 5858468
	70736 FELLBACH (STUTTGART)	**Fax 2:**	
	GERMANY		
E-Mail Internet:	boehnke@fb.sony.de		

Name:	**BORGOGNO Livio**	**Tel 1:**	+39 125 624 308
Company:	OMNITEL PRONTO ITALIA	**Tel 2:**	
Address:	Via G. Jervis, 13	**Mob :**	
		Fax 1:	+39 125 624 727
	10015 IVREA (TO)	**Fax 2:**	
	ITALY		
E-Mail Internet:	livio.borgogno@omnitel.it		

Name:	**BOS Wim**	**Tel 1:**	+31 43 355 7758
Company:	LIBERTEL	**Tel 2:**	
Address:	PO Box 1500	**Mob :**	+31 654 670 758
	Avenue Ceramique 300	**Fax 1:**	+31 43 355 7444
	6201 BM MAASTRICHT	**Fax 2:**	
	THE NETHERLANDS		
E-Mail Internet:	w.bos@libertel.nl		

Name:	**BROUSSE Louis**	**Tel 1:**	+33 1 53 78 18 25
Company:	MOTOROLA SA	**Tel 2:**	
Address:	1 Boulevard Victor	**Mob :**	+33 6 07 34 36 85
	BP 568	**Fax 1:**	+33 1 53 78 18 01
	75726 PARIS CEDEX 15	**Fax 2:**	
	FRANCE		
E-Mail Internet:	tmgt16@email.mot.com		

Name:	**BROWN Michael**	**Tel 1:**	+44 1252 775 200
Company:	ANITE SYSTEMS	**Tel 2:**	
Address:	127 Fleet Road	**Mob :**	
	Fleet	**Fax 1:**	+44 1252 775 299
	HANTS GU13 8PD	**Fax 2:**	
	UNITED KINGDOM		
E-Mail Internet:	mbrown@tandt.anitesystems.co.uk		

Name:	**BRUZZONE Raul**	**Tel 1:**	+33 2 43 41 11 33
Company:	PHILIPS CONSUMER COMMUNICATIONS	**Tel 2:**	
Address:	3 Rue de Pampelune	**Mob :**	
		Fax 1:	+33 2 43 41 11 26
	78081 LE MANS	**Fax 2:**	
	FRANCE		
E-Mail Internet:	raul.bruzzone@lme.pcc.philips.com		

Name:	**BULK Joaquin**	**Tel 1:**	+49 30 6104 4314
Company:	DETEWE DEUTSCHE TELEFONWERKE	**Tel 2:**	
Address:	Weughofstr. 1	**Mob :**	
		Fax 1:	+49 30 6104 5140
	10997 BERLIN	**Fax 2:**	
	GERMANY		

Name:	**BUMANN Peter**	**Tel 1:**	+49 7191 13 2855
Company:	BOSCH TELECOM GmbH	**Tel 2:**	
Address:	Gerberstrasse 33	**Mob :**	+49 1717 3636 39
		Fax 1:	+49 7191 13 3252
	71522 BACKNANG	**Fax 2:**	
	GERMANY		
E-Mail Internet:	peter.bumann@pcm.bosch.de		

Name:	**BURRELL Jon**	**Tel 1:**	+44 1763 261 222
Company:	PA CONSULTING GROUP	**Tel 2:**	
Address:	Cambridge Technology Centre	**Mob :**	
	Melbourn, Royston	**Fax 1:**	+44 1763 260 023
	HERTS SG8 6DP	**Fax 2:**	
	UNITED KINGDOM		

Name:	**BYRNE James**	**Tel 1:**	+44 1 344 301 883
Company:	KENWOOD CORPORATION	**Tel 2:**	
Address:	Azure House, Bagshot Road	**Mob :**	
	Bracknell	**Fax 1:**	+44 1 344 300 293
	BERKSHIRE RG12 95W	**Fax 2:**	
	UNITED KINGDOM		
E-Mail Internet:	j.byrne@kenwood-europe.co.uk		

Name:	**CABRERA Inaki**	**Tel 1:**	+34 1 657 57 26
Company:	AIRTEL MOVIL SA	**Tel 2:**	
Address:	Av. de Europa 1	**Mob :**	+34 07 09 5726
	Parque Tecnologico "La Moraleja"	**Fax 1:**	+34 1 657 54 04
	28100 ALCOBENDAS (Madrid)	**Fax 2:**	
	SPAIN		
E-Mail Internet:	icabrer@airtel.es		

Name:	**CANDEO Silvano**	**Tel 1:**	+39 6 5958 2660
Company:	MINISTERO P.T.	**Tel 2:**	
Address:	I.S.P.T	**Mob :**	
	Viale America 201	**Fax 1:**	+39 6 5410 904
	00144 ROMA	**Fax 2:**	
	ITALY		

Name:	**CAO Shumin**	**Tel 1:**	+ 86 10 68 02 6421
Company:	MPT OF CHINA	**Tel 2:**	+ 8610 68 0942 65
Address:	No. 11 Yue Tan Nan Jie	**Mob :**	+ 86139 1120 724
		Fax 1:	+ 8610 68034 801
	BEIJING 100045	**Fax 2:**	
	CHINA		
E-Mail Internet:	csm@bupt.edu.cn		

Name:	**CAPPIELLO Paolo**	**Tel 1:**	+39 2 4143 3501
Company:	OMNITEL PRONTO ITALIA	**Tel 2:**	
Address:	Via Caboto, 15	**Mob :**	+39 348 22 70 140
		Fax 1:	+39 2 4143 3299
	20094 CORSICO	**Fax 2:**	
	ITALY		
E-Mail Internet:	paolo.cappiello@omnitel.it		

Name:	**CARCEL Marc**	**Tel 1:**	+33 4 76 50 00 57
Company:	RADIALL	**Tel 2:**	
Address:	642 rue Emile Romanet	**Mob :**	
		Fax 1:	+33 4 76 56 60 97
	38340 VOREPPE	**Fax 2:**	
	FRANCE		

Name:	**CARIOU Hubert**	**Tel 1:**	+33 1 39 26 6004
Company:	BOUYGUES TELECOM	**Tel 2:**	
Address:	Europa	**Mob :**	+33 6 60 31 60 04
	51, avenue de l'Europe	**Fax 1:**	+33 1 39 26 6402
	78944 VELIZY CEDEX	**Fax 2:**	
	FRANCE		
E-Mail Internet:	hcariou@bouyguestelecom.fr		

Name:	**CARRARA Jean-Louis**	**Tel 1:**	+1 972 726 2797
Company:	GEMPLUS	**Tel 2:**	
Address:	6600 LBJ Freeway, Suite 109	**Mob :**	
	Dallas	**Fax 1:**	+1 972 726 1868
	TEXAS 75240-6514	**Fax 2:**	
	UNITED STATES		
E-Mail Internet:	jean-louis.carrara@ccmail.edt.fr		

Name:	**CASSEN Quent**	**Tel 1:**	+1 714 221 4177
Company:	ROCKWELL INTERNATIONAL CORPORATION	**Tel 2:**	
Address:	Wireless Communications Division	**Mob :**	
	4311 Jamboree Road	**Fax 1:**	+1 714 221 6169
	NEWPORT BEACH CA 92660-3095	**Fax 2:**	
	UNITED STATES		
E-Mail Internet:	cassen@nb.rockwell.com		

Name:	**CASTELLANOS Carlos**	**Tel 1:**	+34 1 330 4905
Company:	ALCATEL ESPANA SA	**Tel 2:**	
Address:	Calle Ramirez de Prado 5	**Mob :**	
		Fax 1:	+34 1 330 5031
	28045 MADRID	**Fax 2:**	
	SPAIN		
E-Mail Internet:	czamora@alcatel.es		

Name:	**CAVIGIOLI Chris**	**Tel 1:**	+49 89 76903 400
Company:	ANALOG DEVICES	**Tel 2:**	+1 781 461 3058
Address:	Am Westpark 1-3	**Mob :**	+49 172 853 4702
		Fax 1:	+49 89 76903 404
	81373 MUENCHEN	**Fax 2:**	
	GERMANY		
E-Mail Internet:	chris.cavigioli@analog.com		

Name:	**CHAKAVEH Sepiden**	**Tel 1:**	+49 2241 142608
Company:	DETECON	**Tel 2:**	
Address:	Schloss Birling Hoven	**Mob :**	
		Fax 1:	+49 2241 142449
	53754 ST AUGUSTIN	**Fax 2:**	
	GERMANY		
E-Mail Internet:	chakaveh@gmd.de		

Name:	**CHAN Francis W.M.**	**Tel 1:**	+852 961 6683
Company:	OFTA (Off.Telecom.Authority)	**Tel 2:**	
Address:	29/F Wu Chung House	**Mob :**	
	213 queen's Rd.East	**Fax 1:**	+852 803 5111
	WAN CHAI	**Fax 2:**	+852 803 5110
	HONG KONG		

Name:	**CHANDLER Colin**	**Tel 1:**	+44 1 635 875 526
Company:	MATSUSHITA COMMUNICATION INDUSTRIAL LTD	**Tel 2:**	+44 1 635 871 466
Address:	Daytona Drive, Colthrop	**Mob :**	+44 385 362 255
	Thatcham	**Fax 1:**	+44 1 635 871 345
	BERKS RG19 4ZD	**Fax 2:**	+44 1 635 873 638
	UNITED KINGDOM		
E-Mail Internet:	colin.chandler@mci.co.uk		

Name:	**CHARBONNIER Philippe**	**Tel 1:**	+33 1 40 70 83 32
Company:	SAGEM	**Tel 2:**	
Address:	BP 8448	**Mob :**	
		Fax 1:	+33 1 40 70 84 35
	95807 CERGY-PONTOISE CEDEX	**Fax 2:**	
	FRANCE		
E-Mail Internet:	scscharb@imaginet.fr		

Name:	**CHARLES Jean Pierre**	**Tel 1:**	+33 1 45 29 56 80
Company:	FRANCE TELECOM	**Tel 2:**	
Address:	CNET/DMR/RMC	**Mob :**	
	38-40 Rue Général Leclerc	**Fax 1:**	+33 1 45 29 64 40
	92794 ISSY MOULINEAUX CEDEX 9	**Fax 2:**	
	FRANCE		
E-Mail Internet:	jeanpierre.charles@cnet.francetelecom.fr		

Name:	**CHAUVEAU Didier**	**Tel 1:**	+33 1 40 47 71 25
Company:	ART	**Tel 2:**	
Address:	7 Square Max Hymans	**Mob :**	
		Fax 1:	+33 1 40 47 71 90
	75015 PARIS	**Fax 2:**	
	FRANCE		
E-Mail Internet:	didier.chauveau@art-telecom.fr		

Name:	**CHEN Horen**	**Tel 1:**	+1 408 554 8600
Company:	MOBILINK TELECOM INC.	**Tel 2:**	
Address:	3777 Stevens Creek Blvd.	**Mob :**	
	Suite 410	**Fax 1:**	+1 408 554 8897
	SANTA CLARA, CA 95051-7364	**Fax 2:**	
	UNITED STATES		
E-Mail Internet:	horen@valuserve.com		

Name:	**CHIA Stanley**	**Tel 1:**	+1 510 210 3470
Company:	AIRTOUCH COMMUNICATIONS INC.	**Tel 2:**	
Address:	2999 Oak Road	**Mob :**	
	9th Floor	**Fax 1:**	+1 510 210 3485
	WALNUT CREEK, CA 94596	**Fax 2:**	
	UNITED STATES		
E-Mail Internet:	stanley.chia@airtouch.com		

Name:	**CHOMET Patrick**	**Tel 1:**	+44 181 600 1083
Company:	ICO GLOBAL COMMUNICATIONS	**Tel 2:**	
Address:	1 Queen Caroline Street	**Mob :**	
	Hammersmith	**Fax 1:**	+44 181 563 9413
	LONDON W6 9BN	**Fax 2:**	
	UNITED KINGDOM		
E-Mail Internet:	patrick.chomet@i-co.uk		

Name:	**COOKE Stuart**	**Tel 1:**	+44 1 71 711 0150
Company:	DEPARTMENT OF TRADE INDUSTRY	**Tel 2:**	
Address:	Radiocommunications Agency	**Mob :**	
	New King 5, Beam house, 22 Upper Ground	**Fax 1:**	+44 1 71 211 0123
	LONDON SE1 9SA	**Fax 2:**	
	UNITED KINGDOM		
E-Mail Internet:	cookes@ra.gtnet.uk		

Name:	**COOPER David**	**Tel 1:**	+44 1734 654 511
Company:	NEC TECHNOLOGIES (UK) LTD	**Tel 2:**	+44 1734 257 190
Address:	Level 3, the Imperium	**Mob :**	
	Imperial Way, Worton Grange	**Fax 1:**	+44 1734 257 191
	READING RG2 0TD	**Fax 2:**	
	UNITED KINGDOM		
E-Mail Internet:	Dcooper@nectech.co.uk		

Name:	**CORRIGAN Louis**	**Tel 1:**	+353 1 661 8050
Company:	ALDISCON LTD	**Tel 2:**	+353 1 605 3122
Address:	Hambleden House	**Mob :**	+353 87 423 701
	19/26 Lower Pembroke Street	**Fax 1:**	+353 1 676 9430
	DUBLIN 2	**Fax 2:**	
	IRELAND		
E-Mail Internet:	louis@aldiscon.ie		

Name:	**COURAU Francois**	**Tel 1:**	+33 1 30 77 94 68
Company:	ALCATEL FRANCE	**Tel 2:**	
Address:	10, rue Latécoère	**Mob :**	+33 6 08 82 20 82
		Fax 1:	+33 1 30 77 94 30
	78141 VELIZY CEDEX	**Fax 2:**	
	FRANCE		
E-Mail Internet:	francois.courau@vz.cit.alcatel.fr		
X.400:	c=FR;a=ATLAS;p=ALCANET;o=ALCATEL;s=courau;g=francois		

Name:	**COURT David**	**Tel 1:**	+353 1 209 1947
Company:	GSM MOU ASSOCIATION	**Tel 2:**	
Address:	Telecomm Eireann	**Mob :**	+ 353 86 810 1300
	Avoca Court, Temple Road	**Fax 1:**	+353 1 269 5958
	DUBLIN 4	**Fax 2:**	
	IRELAND		
E-Mail Internet:	dcourt@gsmmou.ie		

Name:	**COX Alan**	**Tel 1:**	+44 1635 503 332
Company:	VODAFONE LTD	**Tel 2:**	
Address:	The Courtyard	**Mob :**	+44 385 200 147
	2-4 London Road	**Fax 1:**	+44 1635 583 019
	NEWBURY, BERKSHIRE RG14 1JX	**Fax 2:**	+44 1635 31127
	UNITED KINGDOM		
E-Mail Internet:	alan.cox@vf.vodafone.co.uk		

Name:	**CRESPO DE PEDRO Alfonso**	**Tel 1:**	+34 1 467 30 00
Company:	ALCATEL SESA	**Tel 2:**	
Address:	C/ Ramirez de Prado, 5	**Mob :**	
		Fax 1:	+34 1 528 61 22
	28045 MADRID	**Fax 2:**	
	SPAIN		

Name:	**CRITCHLOW David N.**	**Tel 1:**	+1 619 626 8834
Company:	UNIDEN SAN DIEGO	**Tel 2:**	
Address:	R&D CENTER	**Mob :**	
		Fax 1:	+1 619 622 7237
	SAN DIEGO, CA	**Fax 2:**	
	UNITED STATES		
E-Mail Internet:	dcritchlow@src.uniden.com		

Name:	**CRUCHANT Laurent**	**Tel 1:**	+33 1 30 77 82 75
Company:	ALCATEL MOBILE COMMUNICATION	**Tel 2:**	
Address:	10 rue Latécoère	**Mob :**	+33 6 07 63 13 46
		Fax 1:	+33 1 30 77 94 30
	78141 VELIZY CEDEX	**Fax 2:**	
	FRANCE		
E-Mail Internet:	laurent.cruchant@vz.cit.alcatel.fr		

Name:	**DALSANTO Gilberto**	**Tel 1:**	+31 20 547 9847
Company:	HEWLETT PACKARD	**Tel 2:**	
Address:	PO Box 999	**Mob :**	
		Fax 1:	+31 20 547 7799
	1180 AZ AMSTELVEEN	**Fax 2:**	
	THE NETHERLANDS		

Name:	**DAVIDIAN Jean-Jacques**	**Tel 1:**	+33 4 92 94 42 71
Company:	ETSI/PT SMG	**Tel 2:**	
Address:	650 Route des Lucioles	**Mob :**	
		Fax 1:	+33 4 93 65 28 17
	06921 SOPHIA ANTIPOLIS CEDEX	**Fax 2:**	
	FRANCE		
E-Mail Internet:	jean-jacques.davidian@etsi.fr		

Name:	**DAVIDSSON Pamela**	**Tel 1:**	+46 8 678 55 93
Company:	NATIONAL POST & TELECOM	**Tel 2:**	
Address:	Birger Jarlsgatan 16	**Mob :**	
	Box 5398	**Fax 1:**	+46 8 678 55 09
	102 49 STOCKHOLM	**Fax 2:**	
	SWEDEN		
E-Mail Internet:	pamela.davidsson@pts.se		

Name:	**DAY Brian**	**Tel 1:**	+44 1 628 434 153
Company:	NORTEL	**Tel 2:**	
Address:	3, Roxborough Way, Foundation Park	**Mob :**	
		Fax 1:	+44 1 628 434 034
	MAIDENHEAD SL6 2UD	**Fax 2:**	
	UNITED KINGDOM		
E-Mail Internet:	brd777@nortel.ca		

Name:	**DE JONG Henk**	**Tel 1:**	+61 3 9 412 1879
Company:	TELSTRA CORPORATION Ltd.	**Tel 2:**	
Address:	Mobile Comm.Services	**Mob :**	+61 418 309 900
	181-189 Victoria Parade	**Fax 1:**	+61 3 9 416 2930
	COLLINGWOOD VIC 3066	**Fax 2:**	
	AUSTRALIA		
E-Mail Internet:	hdejong@vmcsnat4.telecom.com.au		

Name:	**DEL CARRATORE Paolo**	**Tel 1:**	+39 10 6002 812
Company:	MARCONI S.p.A.	**Tel 2:**	
Address:	Via A. Negrone, 1A	**Mob :**	
		Fax 1:	+39 10 6002 044
	16153 GENOVA	**Fax 2:**	
	ITALY		
E-Mail Internet:	otemac@pn.itnet.it		

Name:	**DETTNER Harald**	**Tel 1:**	+49 6621 169169
Company:	SIEMENS AG	**Tel 2:**	
Address:	Dep.MN P24	**Mob :**	+49 171 3340 784
	Landecker Strasse 11	**Fax 1:**	+49 6621 169122
	36251 BAD HERSFELD	**Fax 2:**	
	GERMANY		
E-Mail Internet:	harald.dettner@mn.oen.siemens.de		

Name:	**DOIG Ian**	**Tel 1:**	+33 4 9294 4226
Company:	ETSI/ECS Dept	**Tel 2:**	
Address:	650 Route des Lucioles	**Mob :**	
		Fax 1:	+33 4 93 65 47 16
	06921 SOPHIA ANTIPOLIS CEDEX	**Fax 2:**	
	FRANCE		
E-Mail Internet:	ian.doig@etsi.fr		
X.400:	c=FR; a=ATLAS; p=ETSI; s=Doig; g=Ian		

Name:	**DOLDER Hanspeter**	**Tel 1:**	+41 32 327 5568
Company:	OFCOM	**Tel 2:**	
Address:	Zukunfstrasse 44	**Mob :**	
		Fax 1:	+41 32 327 5558
	2501 BIEL	**Fax 2:**	
	SWITZERLAND		
E-Mail Internet:	hanspeter.dolder@bakom.admin.ch		

Name:	**DONAT Peter**	**Tel 1:**	+43 1 1707 21200
Company:	FEEI	**Tel 2:**	
Address:	C/O SIEMENS AG	**Mob :**	+43 664 162 4383
	Autokaderstrasse 29	**Fax 1:**	+43 1 1707 51902
	1210 WIEN	**Fax 2:**	
	AUSTRIA		
E-Mail Internet:	peter.donat@siemens.at		

Name:	**DORGELO Albert J.G.**	**Tel 1:**	+31 356 872 879
Company:	LUCENT TECHNOLOGIES Emea B.V	**Tel 2:**	
Address:	Department ESP	**Mob :**	
	PO Box 1168/Room BG 502	**Fax 1:**	+31 356 875 833
	1200 BD HILVERSUM	**Fax 2:**	
	THE NETHERLANDS		
E-Mail Internet:	dorgelo@lucent.com		

Name:	**DORNSTETTER Jean-Louis**	**Tel 1:**	+33 1 39 44 55 76
Company:	NORTEL	**Tel 2:**	
Address:	1 Place des Frères Montgolfier	**Mob :**	+33 6 07 77 52 52
	BP 50	**Fax 1:**	+33 1 3944 5012
	78042 GUYANCOURT CEDEX	**Fax 2:**	
	FRANCE		
E-Mail Internet:	jean-louis.dornstetter@nt.com		

Name:	**DROZDY Györö**	**Tel 1:**	+36 1 270 4130
Company:	PANNON GSM TELECOM. PLC	**Tel 2:**	+36 1 270 5030
Address:	Vàci ut 37	**Mob :**	+36 20 302 030
		Fax 1:	+36 1 270 4110
	1134 BUDAPEST	**Fax 2:**	
	HUNGARY		
E-Mail Internet:	drozdy@pgsm.hu		

Name:	**DUMONT Jean Jacques**	**Tel 1:**	+33 1 39 49 20 71
Company:	FRAMATOME CONNECTORS FRANCE	**Tel 2:**	+33 1 39 49 21 83
Address:	145 Rue Yves-le-Coz	**Mob :**	
		Fax 1:	+33 1 39 49 22 91
	78035 VERSAILLES CEDEX	**Fax 2:**	+33 1 39 49 20 00
	FRANCE		

Name:	**DUPUIS Philippe**	**Tel 1:**	+33 1 4044 4205
Company:	SPER	**Tel 2:**	
Address:	33 rue des Thermopyles	**Mob :**	+33 0761 7695
		Fax 1:	+33 1 4044 5381
	75014 PARIS	**Fax 2:**	
	FRANCE		
E-Mail Internet:	100537.517@compuserve.com		

Name:	**EHRLICH Ed**	**Tel 1:**	+1 973 292 5724
Company:	NORTEL	**Tel 2:**	
Address:	465 South St.	**Mob :**	
	Suite 100	**Fax 1:**	+1 973 292 4160
	MORRISTOWN, NJ 07960	**Fax 2:**	
	UNITED STATES		
E-Mail Internet:	ed.ehrlich@nt.com		

Name:	**EKEN S. Koray**	**Tel 1:**	+90 312 385 1900
Company:	ASELSAN AS	**Tel 2:**	
Address:	PO BOX 101	**Mob :**	+90 532 312 6063
		Fax 1:	+90 312 354 1679
	06372 Y MAKALLE ANKARA	**Fax 2:**	
	TURKEY		
E-Mail Internet:	keken@hc.aselsan.com.tr		

Name:	**ELKON Stéphane**	**Tel 1:**	+33 1 4047 7092
Company:	ART	**Tel 2:**	
Address:	7 Square Max Hymans	**Mob :**	
		Fax 1:	+33 1 40477206
	75730 PARIS CEDEX 15	**Fax 2:**	
	FRANCE		
E-Mail Internet:	stephane.elkon@art-telecom.fr		

Name:	**ERIKSSON Leif**	**Tel 1:**	+468 540 826 12
Company:	ALLGON AB SWEDEN	**Tel 2:**	
Address:	PO BOX 500	**Mob :**	+46 708 228921
		Fax 1:	+46 8 540 82486
	18425 AKERSBERGA	**Fax 2:**	
	SWEDEN		
E-Mail Internet:	leif.eriksson@allgon.se		

Name:	**EYNARD Carlo**	**Tel 1:**	+39 125 62 4322
Company:	STET-CSELT	**Tel 2:**	
Address:	Via G. Jervis 13	**Mob :**	
		Fax 1:	+39 11 228 6190
	10015 IVREA (TO)	**Fax 2:**	
	ITALY		

Name:	**FAGAN John**	**Tel 1:**	+353 1 808 2784
Company:	TELTEC IRELAND	**Tel 2:**	
Address:	FORBAIRT	**Mob :**	
	Glasnevin	**Fax 1:**	+353 1 837 7648
	DUBLIN 9	**Fax 2:**	
	IRELAND		
E-Mail Internet:	faganj@netc.ie		

Name:	**FAUCONNIER Denis**	**Tel 1:**	+33 1 39 44 52 87
Company:	NORTEL	**Tel 2:**	
Address:	1, Place des Frères Montgolfier	**Mob :**	
	BP 50	**Fax 1:**	+33 1 39 44 50 02
	78042 GUYANCOURT CEDEX	**Fax 2:**	
	FRANCE		
E-Mail Internet:	denis.fauconnier@nortel.com		

Name:	**FENN John**	**Tel 1:**	+44 1784 428 600
Company:	SAMSUNG ELECTRONIC RESEARCH INSTITUTE	**Tel 2:**	
Address:	Communication House	**Mob :**	
	South Street	**Fax 1:**	+44 1784 428 629
	STAINES TW18 4QE	**Fax 2:**	
	UNITED KINGDOM		
E-Mail Internet:	johnbfenn@aol.com		

Name:	**FENYVES Alessandro**	**Tel 1:**	+39 2 4388 9337
Company:	ITALTEL	**Tel 2:**	
Address:		**Mob :**	+39 335 800 4180
	20019 SETTIMO MILANESE	**Fax 1:**	+39 2 4388 5869
	MILANO	**Fax 2:**	
	ITALY		
E-Mail Internet:	alessandro.fenyves@italtel.it		

Name:	**FINK Hellmut**	**Tel 1:**	+49 89 636 27464
Company:	SIEMENS CTE GmbH	**Tel 2:**	
Address:	Marketing M5 (Mch M/K)	**Mob :**	
	PO Box 18 17 60	**Fax 1:**	+49 89 636 27458
	81617 MUNICH	**Fax 2:**	
	GERMANY		

Name:	**FLANN Jeremy**	**Tel 1:**	+44 1 276 686 886
Company:	HARRIS SEMICONDUCTOR	**Tel 2:**	
Address:	Riverside Way, Watchmoor Park	**Mob :**	
		Fax 1:	+44 1 276 682 323
	CAMBERLEY GU15 3YQ	**Fax 2:**	
	UNITED KINGDOM		
E-Mail Internet:	jflann@harris.com		

Name:	**FLERON Stefan**	**Tel 1:**	+46 46 185 663
Company:	AU-SYSTEM RADIO AB	**Tel 2:**	+46 46 18 56 10
Address:	Scheelevägen 17	**Mob :**	+43 70 518 56 63
	IDEON	**Fax 1:**	+46 46 185 620
	22370 LUND	**Fax 2:**	+46 70 614 5663
	SWEDEN		
E-Mail Internet:	sfn@radio.ausys.se		

Name:	**FOERSTER Ronald E.**	**Tel 1:**	+33 4 92 38 82 20
Company:	QUALCOMM EUROPE SARL	**Tel 2:**	
Address:	2000 Route des Lucioles	**Mob :**	+33 6 12 14 12 38
	BP 126	**Fax 1:**	+33 4 92 38 82 30
	06903 SOPHIA ANTIPOLIS CEDEX	**Fax 2:**	
	FRANCE		
E-Mail Internet:	rfoerster@qualcomm.com		

Name:	**FOXMAN Arne**	**Tel 1:**	+45 4358 6460
Company:	TELEDANMARK MOBIL	**Tel 2:**	
Address:	Spotorno Allé 12	**Mob :**	+45 40 130082
		Fax 1:	+45 43 71 08 41
	2630 TAASTRUP	**Fax 2:**	
	DENMARK		
E-Mail Internet:	afo@tdm.dk		

Name:	**FREEMAN David**	**Tel 1:**	+44 1256 790 131
Company:	MOTOROLA	**Tel 2:**	+44 1256 790 319
Address:	European Standards Dvpt.	**Mob :**	+44 385 300 588
	Midpoint, Alencon Link	**Fax 1:**	+44 1256 790 190
	BASINGSTOKE RG21 7PL	**Fax 2:**	+44 1256 817 481
	UNITED KINGDOM		
E-Mail Internet:	david_freeman@chineham.euro.csg.mot.com		

Name:	**FRITZE Stefan**	**Tel 1:**	+49 51 21 49 53 76
Company:	ROBERT BOSCH GmbH	**Tel 2:**	
Address:	FV/SLM-Ft	**Mob :**	+49 1 72 94 393 75
	PO Box 77 77 77	**Fax 1:**	+49 51 21 49 25 20
	31132 HILDESHEIM	**Fax 2:**	
	GERMANY		
E-Mail Internet:	stefan.fritze@fr.bosch.de		

Name:	**FUKUDA Eisuke**	**Tel 1:**	+44 181 606 4473
Company:	FUJITSU EUROPE TELECOM	**Tel 2:**	
Address:	2 Longwalk Road, Stockley Park	**Mob :**	
	Vaughan Street, West Gorton	**Fax 1:**	+44 181 606 4539
	MANCHESTER M12 5FU	**Fax 2:**	
	UNITED KINGDOM		
E-Mail Internet:	e.fukuda@fujitsu.co.uk		

Name:	**GALLMANN Arnd**	**Tel 1:**	+49 1 211 5296 398
Company:	TOSHIBA EUROPE GmbH	**Tel 2:**	
Address:	Hammferldamm 8	**Mob :**	+49 172 2520 576
		Fax 1:	+49 1 211 5296 404
	41460 NEUSS	**Fax 2:**	
	GERMANY		
E-Mail Internet:	agallmann@tee.toshiba.de		

Name:	**GALWAS Paul**	**Tel 1:**	+44 1480 466 683
Company:	TELXON INTERNATIONAL	**Tel 2:**	

Address:	Unit 5 Swan Close	**Mob :**	
	St. Ives	**Fax 1:**	+44 1480 352 156
	CAMBS PE17 4HX	**Fax 2:**	
	UNITED KINGDOM		

Name:	**GARCIA CUARTANGO Araceli**	**Tel 1:**	+34 1 657 5699
Company:	AIRTEL MOVIL SA	**Tel 2:**	
Address:	Av. de Europa, 1	**Mob :**	+34 07 090503
	Parque empresarial "La moraleja"	**Fax 1:**	+34 1 657 5404
	28100 ALCOBENDAS	**Fax 2:**	
	SPAIN		
E-Mail Internet:	agarcia6@airtel.es		

Name:	**GASKELL Philip**	**Tel 1:**	+44 1 81 214 2230
Company:	ONE-2-ONE	**Tel 2:**	
Address:	Imperial Place	**Mob :**	
	Maxwell Road, Borehamwood	**Fax 1:**	+44 1 81 9051 671
	HERTS WD6 1EA	**Fax 2:**	
	UNITED KINGDOM		
E-Mail Internet:	pgaskell@one2one.co.uk		

Name:	**GATTONI Julien**	**Tel 1:**	+41 22 929 29 67
Company:	SGS-THOMSON Microelectronics NV	**Tel 2:**	
Address:	ICC-Bloc A, Rte de Pré-Bois 20	**Mob :**	+ 41 79 226 66 67
	Case Postale 1898	**Fax 1:**	+41 22 929 2970
	1215 GENEVA 15	**Fax 2:**	
	SWITZERLAND		
E-Mail Internet:	julien.gattoni@st.com		

Name:	**GEORGOPOULOS Ioannis**	**Tel 1:**	+ 301 6177 563
Company:	COSMOTE S.A.	**Tel 2:**	
Address:	56, Kifissias and Delfon Ave.	**Mob :**	+30 94 69 43 14
		Fax 1:	+301 61 77 594
	Maroussi 15125	**Fax 2:**	
	GREECE		
E-Mail Internet:	ygeorgop@otenet.gr		

Name:	**GEUENS Leopold**	**Tel 1:**	+32 1 425 2973
Company:	SIEMENS ATEA NV	**Tel 2:**	
Address:	Atealaan 34	**Mob :**	
		Fax 1:	+32 1 425 3212
	2200 HERENTALS	**Fax 2:**	
	BELGIUM		
E-Mail Internet:	leopold.geuens@vnet.atea.be		

Name:	**GOODE Steven**	**Tel 1:**	+1 815 884 8089
Company:	MOTOROLA	**Tel 2:**	
Address:	2001 N. Division Street	**Mob :**	
	HARVARD	**Fax 1:**	+1 815 884 2519

	ILLINOIS 6V033	**Fax 2:**	
	UNITED STATES		
E-Mail Internet:	acmr2u@email.mot.com		

Name:	**GRASSOT Francois**	**Tel 1:**	+33 1 39444099
Company:	ECTEL TMS	**Tel 2:**	
Address:	c/o NMC 1, Place des Frères Montgolfier	**Mob :**	+33 6 07 10 44 19
	BP 50	**Fax 1:**	+33 1 3944 5053
	78042 GUYANCOURT CEDEX	**Fax 2:**	
	FRANCE		
E-Mail Internet:	francois_grassot@nt.com		

Name:	**GROLMAN Achim**	**Tel 1:**	+49 89 996 41 200
Company:	WAVETEK GmbH	**Tel 2:**	
Address:	Gutenbergstr. 2-4	**Mob :**	
	Postfach 1335	**Fax 1:**	+49 89 996 41440
	85731 ISMANING	**Fax 2:**	
	GERMANY		
E-Mail Internet:	grolmana@wavetek.de		

Name:	**HÆSTRUP Jan**	**Tel 1:**	+45 33 29 20 89
Company:	NOKIA MOBILE PHONES A/S	**Tel 2:**	
Address:	Frederikskaj	**Mob :**	+45 40 60 90 14
		Fax 1:	+45 33 29 20 01
	1790 COPENHAGEN V	**Fax 2:**	
	DENMARK		
E-Mail Internet:	jan.haestrup@nmp.nokia.com		
X.400:	40609014@note.sonofon.dk		

Name:	**HAILU Yilma**	**Tel 1:**	+1 404 249 0594
Company:	BELLSOUTH INTERNATIONAL	**Tel 2:**	
Address:	1100 Peachtree Street, N.E.	**Mob :**	+1 404 713 2456
	Room GA07	**Fax 1:**	+1 404 249 4489
	ATLANTA, GA 30309-4599	**Fax 2:**	
	UNITED STATES		
E-Mail Internet:	hailu.yilma@bsi.bls.com		

Name:	**HALL Ken**	**Tel 1:**	+44 1 753 565 524
Company:	CELLNET	**Tel 2:**	
Address:	260 Bath Road	**Mob :**	+44 802 220 802
	BERKS	**Fax 1:**	+44 1 753 565 029
	SLOUGH SL1 4DX	**Fax 2:**	+44 1 753 565 021
	UNITED KINGDOM		
E-Mail Internet:	khall@cellnet.co.uk		

Name:	**HARROLD William**	**Tel 1:**	+44 1 763 262 626
Company:	THE TECHNOLOGY PARTNERSHIP	**Tel 2:**	
Address:	Melbourn Science Park	**Mob :**	
	Cambridge Road, Melbourn,	**Fax 1:**	+44 1 763 261 582
	ROYSTON SG8 6EE	**Fax 2:**	
	UNITED KINGDOM		

E-Mail Internet: wbh2@techprt.co.uk

Name:	**HATFIELD Don**	**Tel 1:**	+49 89 552 2610
Company:	NTE NEUTECH	**Tel 2:**	
Address:	Dachauer Strasse 44	**Mob :**	
		Fax 1:	+49 89 552 26155
	80335 MÜNCHEN	**Fax 2:**	
	GERMANY		

Name:	**HAUSER Hans**	**Tel 1:**	+49 228 936 1200
Company:	DeTeMobil GmbH	**Tel 2:**	
Address:	Landgrabenweg 151	**Mob :**	+ 49 171 549 03 99
	PO Box 300463	**Fax 1:**	+ 49 228 936 3309
	53227 BONN	**Fax 2:**	
	GERMANY		

E-Mail Internet: hans.hauser@t-mobil.de

Name:	**HAUTEM Arnaud**	**Tel 1:**	+32 2 202 4734
Company:	BELGACOM MOBILE - DEPARTEMENT NS	**Tel 2:**	
Address:	Tour T28/03	**Mob :**	+32 7361 2161
	Boulevard E. Jacqmain 173	**Fax 1:**	+32 2 202 4347
	1000 BRUSSELS	**Fax 2:**	
	BELGIUM		

Name:	**HAWLEY Darren**	**Tel 1:**	+44 118 902 9307
Company:	PANASONIC MDC	**Tel 2:**	
Address:	West Forest Gates, Wellington Road	**Mob :**	
	Wokingham	**Fax 1:**	+44 118 902 9331
	BERKSHIRE RG40 2AQ	**Fax 2:**	
	UNITED KINGDOM		

E-Mail Internet: darren.hawley@panasonic-pmdc.co.uk

Name:	**HAYES Stephen**	**Tel 1:**	+1 972 583 5773
Company:	ERICSSON	**Tel 2:**	
Address:	601 N. Glenville	**Mob :**	+1 214 668 5728
		Fax 1:	+1 972 644 3036
	RICHARDSON TX 75081	**Fax 2:**	
	UNITED STATES		

E-Mail Internet: stephen.hayes@ericsson.com

Name:	**HEITZ Jacob**	**Tel 1:**	+61 9 244 4255
Company:	MICRO CELL SYSTEMS	**Tel 2:**	
Address:	Building 4, 41 King Edward Road	**Mob :**	
	Osborne Park	**Fax 1:**	+61 9 244 3987
	WA 6017	**Fax 2:**	
	AUSTRALIA		

E-Mail Internet: microcel@iinet.net.au

Name:	**HELLMAN Monica**	**Tel 1:**	+46 455 331 000
Company:	EUROPOLITAN	**Tel 2:**	+46 455 331 430
Address:		**Mob :**	+46 708 331 430

		Fax 1:	+46 455 331 490
	37180 KARLSKRONA	**Fax 2:**	+46 708 332 430
	SWEDEN		
E-Mail Internet:	monica.hellman@europolitan.se		

Name:	**HERCZ Endre**	**Tel 1:**	+36 1 265 9003
Company:	WESTEL 900	**Tel 2:**	
Address:	5-7 Kaposvar ut.	**Mob :**	
		Fax 1:	+36 1 265 9123
	1117 BUDAPEST	**Fax 2:**	
	HUNGARY		
E-Mail Internet:	hercze@westel900.hu		

Name:	**HERTEL Gisela**	**Tel 1:**	+49 211 4579 252
Company:	VEBA	**Tel 2:**	
Address:	Bennigsenplatz 1	**Mob :**	+49 172 215 8090
		Fax 1:	+49 211 4579 575
	40474 DUSSELDORF	**Fax 2:**	+49 211 4579 599
	GERMANY		
E-Mail Internet:	manuela.kuehn@veba.de		

Name:	**HILDERING Will Christian**	**Tel 1:**	+49 2842 981 400
Company:	IMST GmbH	**Tel 2:**	
Address:	Carl-Friedrich-Gauß Str. 2	**Mob :**	+49 1 71 476 9985
		Fax 1:	+49 2842 981 499
	47475 KAMP-LINTFORT	**Fax 2:**	
	GERMANY		
E-Mail Internet:	hildering@imst.de		

Name:	**HILLEBRAND Friedhelm**	**Tel 1:**	+49 228 47 4770
Company:	ETSI/TC SMG CHAIRMAN	**Tel 2:**	
Address:	GSM CONSORTIUM	**Mob :**	+49 171414 3599
	Combahnstrasse 23	**Fax 1:**	+49 228 47 4764
	53225 BONN	**Fax 2:**	
	GERMANY		
E-Mail Internet:	101727.1340@compuserve.com		

Name:	**HOLLEY Kevin A.**	**Tel 1:**	+44 171 519 9028
Company:	BT	**Tel 2:**	
Address:	MLB 1 PP11	**Mob :**	+44 802 220 811
	Martlesham Heath	**Fax 1:**	+44 171 519 9028
	IPSWICH IP5 3RE	**Fax 2:**	
	UNITED KINGDOM		
E-Mail Internet:	holleyka@boat.bt.com		

Name:	**HOPF Wolfgang**	**Tel 1:**	+49 911 951 680
Company:	SIGOS SYSTEMINTEGRATION GmbH	**Tel 2:**	
Address:	Klingenhofstr.50	**Mob :**	
		Fax 1:	+49 911 514 411
	90411 NÜRNBERG	**Fax 2:**	
	GERMANY		

Name:	**HUBER Josef F.**	**Tel 1:**	+49 89 722 44564
Company:	SIEMENS AG	**Tel 2:**	
Address:	Hofmannstr. 51	**Mob :**	
	Postfach 70 00 73	**Fax 1:**	+49 89 722 48250
	8000 MUNCHEN	**Fax 2:**	
	GERMANY		

Name:	**HYBRE Jean**	**Tel 1:**	+33 1 4197 67 17
Company:	SFR / COFIRA	**Tel 2:**	
Address:	Tour de l' Esplanade	**Mob :**	
	1, Place Carpeaux - La Défense 6	**Fax 1:**	+33 1 4197 6798
	92915 PARIS LA DEFENSE CEDEX	**Fax 2:**	
	FRANCE		

Name:	**IOANNIDIS Yorgos**	**Tel 1:**	+30 1 640 7210
Company:	PANAFON S.A.	**Tel 2:**	+30 1 640 7278
Address:	2, Messogion Ave.	**Mob :**	+30 94 300 500
	Athens Tower	**Fax 1:**	+30 1 640 7039
	11527 ATHENS	**Fax 2:**	
	GREECE		
E-Mail Internet:	ioanidis@panafon.gr		

Name:	**ISRAELSSON Per**	**Tel 1:**	+46 8 707 46 99
Company:	TELIA MOBILE AB	**Tel 2:**	
Address:	Rudsjoterrassen 2	**Mob :**	+46 70 582 2357
		Fax 1:	+46 8 707 48 00
	136 80 HANINGE	**Fax 2:**	
	SWEDEN		
E-Mail Internet:	pin@hk.mobile.telia.se		

Name:	**ISSENMANN Edouard**	**Tel 1:**	+33 1 3077 9301
Company:	ALCATEL CIT	**Tel 2:**	
Address:	10, rue Latécoère	**Mob :**	
	BP 57	**Fax 1:**	+33 1 3077 8276
	78140 VELIZY	**Fax 2:**	
	FRANCE		
E-Mail Internet:	edouard.issenmann@vz.cit.alcatel.fr		

Name:	**JÄGER Thomas**	**Tel 1:**	+49 2054 9519 80
Company:	CETECOM GmbH	**Tel 2:**	
Address:	Im Teelbruch 122	**Mob :**	
		Fax 1:	+49 2054 9519 86
	45219 ESSEN	**Fax 2:**	
	GERMANY		
E-Mail Internet:	thomas.jaeger@cetecom.de		

Name:	**JARDIN Pierre**	**Tel 1:**	+33 4 9295 6148
Company:	DIGITAL EQUIPMENT	**Tel 2:**	+33 4 9295 5426
Address:	BP 027	**Mob :**	

BP 29 - SOPHIA ANTIPOLIS
06921 VALBONNE CEDEX
FRANCE

Fax 1: +33 4 9295 5848
Fax 2: +33 4 9295 6363

E-Mail Internet: Jardin@vbo.mts.dec.com

Name: **JARVELA Teuvo**
Company: NOKIA MOBILE PHONES
Address: St Georges Rd, St Georges Court
Camberley
SURREY GU15 3QZ
UNITED KINGDOM

Tel 1: +44 1 276 419057
Tel 2:
Mob : +44 385 525 683
Fax 1: +44 1 276 677151
Fax 2:

E-Mail Internet: teuvo.jarvela@nmp.nokia.com

Name: **JÄRVINEN Kari**
Company: NOKIA RESEARCH CENTRE
Address: Sinitaival 6
PO Box 100
33721 TAMPERE
FINLAND

Tel 1: +358 3272 5854
Tel 2:
Mob : +358 50 555 0999
Fax 1: +358 3272 5888
Fax 2:

E-Mail Internet: kari.jarvinen@research.nokia.fi

Name: **JENNI Christian**
Company: ERICSSON AG
Address: Postfacch 556

3018 BERN
SWITZERLAND

Tel 1: +41 31 998 3539
Tel 2:
Mob : +41 89 300 3976
Fax 1: +41 31 998 3501
Fax 2:

E-Mail Internet: jen@eas.ericsson.ch

Name: **JENSEN Bjørn Egil**
Company: NETCOM GSM AS
Address: PO Box 4444
Torshov
0403 OSLO
NORWAY

Tel 1: + 47 22 88 81 08
Tel 2: +47 22 88 80 00
Mob :
Fax 1: +47 22 88 84 94
Fax 2: +47 22 65 23 77

E-Mail Internet: bjorn.egil.jensen@netcom-gsm.no

Name: **JOHNSTON Stephen**
Company: PANASONIC
Address: West Forest Gate, Wellington Rd
WORKINGHAM
BERKSHIRE RG40 2AQ
UNITED KINGDOM

Tel 1: +44 1 18902 9322
Tel 2:
Mob :
Fax 1: +44 118 902 9331
Fax 2:

E-Mail Internet: stephen.johnston@panasonic-pdmc.co.uk

Name: **JOMAA Tarek**
Company: ERICSSON OMC LTD
Address: The Keytech Centre, Ashwood Way
Basingstoke
HANTS RG23 8BG
UNITED KINGDOM

Tel 1: +44 1256 864 504
Tel 2:
Mob : +44 468 143 179
Fax 1: +44 1256 864 280
Fax 2:

E-Mail Internet: jomaa@oml.ericsson.se

Name:	**JONES Gary K.**	**Tel 1:**	+1 301 951 2524
Company:	OMNIPOINT CORPORATION	**Tel 2:**	
Address:	3 Bethesd Metro Center	**Mob :**	+ 1 201 486 0949
	Suite 400	**Fax 1:**	+1 703 715 2365
	BETHESDA, MD 20814	**Fax 2:**	
	UNITED STATES		

E-Mail Internet: gjones@omnipoint-corp.com

Name:	**JOST Herbert**	**Tel 1:**	+ 41 31 342 8602
Company:	SWISSCOM	**Tel 2:**	
Address:	MC-MV-5	**Mob :**	+41 79 300 02 15
	Victoriastrasse 21	**Fax 1:**	+ 41 31 342 0518
	3050 BERN	**Fax 2:**	
	SWITZERLAND		

E-Mail Internet: herbert.jost@swisscom.com

Name:	**JOUIN Christophe**	**Tel 1:**	+44 1 734 257 190
Company:	NEC TECHNOLOGIES (UK) LTD	**Tel 2:**	
Address:	Level 3, the Imperium	**Mob :**	
	Imperial Way, Worton Grange	**Fax 1:**	+44 1 734 257 191
	READING, BERKSHIRE RG2 0TD	**Fax 2:**	
	UNITED KINGDOM		

E-Mail Internet: christophe.jouin@nectech.co.uk

Name:	**KANERVA Mikko**	**Tel 1:**	+358 9 5113 8448
Company:	NOKIA TELECOMMUNICATIONS	**Tel 2:**	+358 9 511 21
Address:	PO Box 300	**Mob :**	+358 40 5040 735
		Fax 1:	+358 9 5113 8247
	00045 NOKIA GROUP	**Fax 2:**	mob +358 4060 40735
	FINLAND		

E-Mail Internet: mikko.kanerva@ntc.nokia.com

Name:	**KAR Radivoj**	**Tel 1:**	+33 1 55 68 56 60
Company:	MITSUBISHI ELECTRIC	**Tel 2:**	
Address:	25, Boulevard des Bouvets	**Mob :**	+358 40 500 7160
		Fax 1:	+33 1 55 68 57 41
	92741 NANTERRE CEDEX	**Fax 2:**	
	FRANCE		

E-Mail Internet: rkar@compuserve.com

Name:	**KARTTUNEN Mika**	**Tel 1:**	+358 2 77400
Company:	BENEFON OY	**Tel 2:**	
Address:	PO Box 84	**Mob :**	
		Fax 1:	+358 2 7740 333
	24101 SALO	**Fax 2:**	
	FINLAND		

E-Mail Internet: mika.karttunen@benefon.fi

Name:	**KASAPIDIS Makis**	**Tel 1:**	+44 1635 875528
Company:	MATSUSHITA COMMUNICATION INDUSTRIAL UK	**Tel 2:**	
Address:	Daytona Drive, Colthrop	**Mob :**	+44 385 300414
	Thatcham	**Fax 1:**	+44 1635 873 638
	BERKS RG19 4ZD	**Fax 2:**	
	UNITED KINGDOM		
E-Mail Internet:	makis.kasapidis@mci.co.uk		

Name:	**KENNEDY David**	**Tel 1:**	+49 6221 989 152
Company:	EURESCOM	**Tel 2:**	
Address:	Schloss-Wolfsbrunnenzeg 35	**Mob :**	
		Fax 1:	+49 6221 989 209
	69118 HEIDELBERG	**Fax 2:**	
	GERMANY		
E-Mail Internet:	kennedy@eurescom.de		

Name:	**KIACZ Balàzs**	**Tel 1:**	+ 36 1 347 2203
Company:	MATAV	**Tel 2:**	
Address:	PO Box 2	**Mob :**	+ 36 30 507 143
		Fax 1:	+ 36 1 347 2181
	1456 BUDAPEST	**Fax 2:**	
	HUNGARY		
E-Mail Internet:	kiacz.balazs@matav.hu		

Name:	**KING Robert**	**Tel 1:**	+44 1 71 8301837
Company:	SEMA GROUP	**Tel 2:**	
Address:	233 High Holborn	**Mob :**	
		Fax 1:	+44 1 71 830 1830
	LONDON WC1V 7DJ	**Fax 2:**	
	UNITED KINGDOM		
E-Mail Internet:	bob.king@mail.sema.co.uk		

Name:	**KOCH Werner**	**Tel 1:**	+49 7031 16 6157
Company:	IBM GERMANY	**Tel 2:**	
Address:		**Mob :**	
	1132/71034-91	**Fax 1:**	+49 7031 16 6801
	70548 STUTTGART	**Fax 2:**	
	GERMANY		
E-Mail Internet:	wkoch@de.ibm.com		

Name:	**KOCSIS Tamàs**	**Tel 1:**	+36 1 270 4130
Company:	PANNON GSM	**Tel 2:**	
Address:	Baross U. 165	**Mob :**	+36 20 302 262
		Fax 1:	+36 1 270 4110
	2040 BUDAORS	**Fax 2:**	
	HUNGARY		
E-Mail Internet:	tkocsis@panni.pgsm.hu		

Name:	**KOERBER Frank**	**Tel 1:**	+49 89 4129 3473
Company:	ROHDE & SCHWARZ	**Tel 2:**	

Address:	Mühldorfstr. 15	**Mob :**	
		Fax 1:	+49 89 4129 3443
	81614 MUNICH	**Fax 2:**	
	GERMANY		
E-Mail Internet:	frank.koerber@rsd.de		

Name:	**KOHLSCHMIDT Peter**	**Tel 1:**	+49 89 95086 313
Company:	LUCENT TECHNOLOGIES	**Tel 2:**	
Address:	Medien Allee 6	**Mob :**	+49 172 8530 838
		Fax 1:	+49 89 95086 155
	85774 UNTER FOHRING	**Fax 2:**	
	GERMANY		
E-Mail Internet:	udpko@micro.lucent.com		

Name:	**KOPCIUCH Robert**	**Tel 1:**	+48 2 658 5155
Company:	NATIONAL RADIOCOMMUNICATIONS AGENCY	**Tel 2:**	+48 2 658 5156
Address:	ul. Kasprzaka 18/20	**Mob :**	
		Fax 1:	+48 39 123 022
	01-211 WARSZAWA	**Fax 2:**	
	POLAND		
E-Mail Internet:	r.kopciuch@par.gov.pl		

Name:	**KRISTENSEN Oluf**	**Tel 1:**	+45 9824 7900
Company:	DANCALL TELECOM A/S	**Tel 2:**	
Address:	Bransagervej 30	**Mob :**	
	PO Box 106	**Fax 1:**	+45 9824 7681
	9490 PANDRUP	**Fax 2:**	+45 9820 4144
	DENMARK		
E-Mail Internet:	olk@dancall.dk		

Name:	**KUECHLER Volker**	**Tel 1:**	+49 61 5183 3391
Company:	DEUTSCHE TELEKOM AG	**Tel 2:**	
Address:	TZ EK 15-11	**Mob :**	
	PO Box 10 00 03	**Fax 1:**	+49 61 5183 4407
	64276 DARMSTADT	**Fax 2:**	
	GERMANY		
E-Mail Internet:	kuechler@tzd.telekom.de		

Name:	**KUENAST Walter**	**Tel 1:**	+33 5 61 19 10 59
Company:	MOTOROLA	**Tel 2:**	
Address:	Avenue du Général Eisenhower	**Mob :**	+33 (0)6 08 76 39 03
	Le Miral BP 1029	**Fax 1:**	+33 5 61 19 99 58
	31023 TOULOUSE CEDEX	**Fax 2:**	
	FRANCE		
E-Mail Internet:	walter_kuenast@email.sps.mot.com		

Name:	**KUIJT Arie**	**Tel 1:**	+31 30 233 9300
Company:	CMG	**Tel 2:**	
Address:	Postbus 8038	**Mob :**	
	Nieuwekade 1	**Fax 1:**	+31 30 233 94 95

3503 UTRECH RA
THE NETHERLANDS

Fax 2:

Name: **LAFERRE Hélène**
Company: ETSI
Address: 650, route des Lucioles

06921 SOPHIA ANTIPOLIS CEDEX
FRANCE
E-Mail Internet: hélène.laferre@etsi.fr

Tel 1: +33 4 92 94 42 60
Tel 2:
Mob :
Fax 1: +33 4 93 65 47 16
Fax 2:

Name: **LAGES Antonio**
Company: PORTUGAL TELECOM
Address: Av. Fontes Pereira de Melo 40-6°

1000 LISBOA
PORTUGAL
E-Mail Internet: alages@tmn.pt

Tel 1: +351 1 791 4656
Tel 2:
Mob :
Fax 1: +351 1 791 4539
Fax 2:

Name: **LAHT Maria**
Company: COMVIQ GSM AB
Address: PO Box 123

129 23 HAEGERSTEN
SWEDEN
E-Mail Internet: maria.laht@comviq.se

Tel 1: +46 8 5225 11 52
Tel 2:
Mob : +46 70 710 11 52
Fax 1: +46 70 792 9297
Fax 2:

Name: **LANGRAND Franck**
Company: FRANCE TELECOM MOBILES
Address: 41-45 bd Romain Rolland

75672 PARIS CEDEX 14
FRANCE
E-Mail Internet: franck.langrand@francetelecom.fr

Tel 1: +33 1 55 22 23 53
Tel 2:
Mob : +33 6 07 96 06 62
Fax 1: +33 1 55 2223 69
Fax 2:

Name: **LAUMEN Josef**
Company: BOSCH TELECOM GmbH
Address: Robert Bosch Strasse 200

31139 HILDESHEIM
GERMANY
E-Mail Internet: josef.laumen@fr.bosch.de

Tel 1: +49 512 149 3002
Tel 2:
Mob : +49 172 83 71908
Fax 1: +49 512 149 3190
Fax 2:

Name: **LAURENT-LUND Einar**
Company: NATIONAL TELECOM AGENCY
Address: Holsteinsgade 63

2100 COPENHAGEN
DENMARK
E-Mail Internet: ell@tst.dk

Tel 1: +45 3543 0333
Tel 2:
Mob :
Fax 1: +45 3543 4006
Fax 2:

Name:	**LI Andy**	**Tel 1:**	+ 852 2880 2670
Company:	SMARTONE MOBILE COMMMUNICATIONS LIMITED	**Tel 2:**	
Address:	12/F Sommerset House, Taikoo Place	**Mob :**	+ 852 9018 8103
	979 King's Road, Quarry Bay	**Fax 1:**	+ 852 2880 2799
	Hong Kong	**Fax 2:**	
	HONG KONG		
E-Mail Internet:	andy_li@hksmartone.com		

Name:	**LI Mo Fang**	**Tel 1:**	+ 8610 6603 2168
Company:	MPT OF CHINA	**Tel 2:**	
Address:	Mobile Com. Bureau	**Mob :**	
	13, West Chang-An Ave	**Fax 1:**	+ 8610 660 12325
	BEIJING 100804	**Fax 2:**	
	CHINA		
E-Mail Internet:	mcbtech@pubilic3.bta.net.cn		

Name:	**LILLY Neil**	**Tel 1:**	+44 1 454 624 820
Company:	ORANGE PCS LTD	**Tel 2:**	
Address:	St. James Court, Great Park Road	**Mob :**	+44 973 994 820
	ALMONDSBURY	**Fax 1:**	+44 1 454 206 629
	BRISTOL BS12 4QJ	**Fax 2:**	
	UNITED KINGDOM		
E-Mail Internet:	neil.lilly@orange.co.uk		

Name:	**LIN Mike**	**Tel 1:**	+886 591 7371
Company:	ITRI	**Tel 2:**	
Address:	195-11 Chung Hsing Road	**Mob :**	
	Hsinchu	**Fax 1:**	+886 582 0081
	TAIWAN 310	**Fax 2:**	
	CHINA		
E-Mail Internet:	jlin@m3sun4.ccl.itri.org.tw		

Name:	**LIXIN Sun**	**Tel 1:**	+86 10 6809 4467
Company:	RITT	**Tel 2:**	
Address:	MPT, Radio Dept.	**Mob :**	
	Yue Tan Nan Jie 11#	**Fax 1:**	+86 10 6853 3951
	BEIJING 100045	**Fax 2:**	
	CHINA		
E-Mail Internet:	sunlixin@public3.bta.net.cn		

Name:	**LJUNGBERG Eric**	**Tel 1:**	+46 40 10 51 43
Company:	TELIA RESEARCH AB	**Tel 2:**	
Address:	P.O. Box 85	**Mob :**	+ 46 70 59 44 444
		Fax 1:	+46 40 30 70 29
	20120 MALMÖ	**Fax 2:**	
	SWEDEN		
E-Mail Internet:	eric.h.ljungberg@telia.se		

Name:	**LJUNGGREN Tommy**	**Tel 1:**	+468707 4625

Company: TELIA MOBILE AB
Address: Trp

13680 HANINGE
SWEDEN
E-Mail Internet: TLN@hk.mobile.telia.se

Tel 2:
Mob : +46 705 910 064
Fax 1: +46 706 100145
Fax 2:

Name: **MADSEN Ole**
Company: DANCALL TELECOM A/S
Address: Bransagervej 30
PO Box 106
9490 PANDRUP
DENMARK
E-Mail Internet: omn@dancall.dk

Tel 1: +45 96 738 000
Tel 2:
Mob : +45 40 53 08 43
Fax 1: +45 96 73 80 02
Fax 2:

Name: **MAHLER Roland**
Company: T-MOBIL
Address: PO Box 300463

53184 BONN
GERMANY
E-Mail Internet: roland.mahler@t-mobil.de

Tel 1: +49 228 936 9410
Tel 2:
Mob :
Fax 1: +49 228 936 9419
Fax 2:

Name: **MAIER Bernhard**
Company: TOP BUSINESSCONSULT GmbH
Address: Klingenhofstrasse 58

90411 NUREMBERG
GERMANY
E-Mail Internet: bernhard_maier@businessakademie.com

Tel 1: +49 911 526 3886
Tel 2:
Mob :
Fax 1: +49 911 526 3753
Fax 2:

Name: **MAIER Gerhard M.**
Company: SHARP LAB.EUROPE LTD.
Address: Edmund Halley Rd.
Oxford Science Park
OXFORD OX4 8DT
UNITED KINGDOM
E-Mail Internet: gerhard.maier@sharp.co.uk

Tel 1: +44 1 865 747 711
Tel 2: +44 1 865 716 689
Mob :
Fax 1: +44 1 865 747 717
Fax 2: +44 1 865 716 689

Name: **MALMBAK Per**
Company: MOTOROLA
Address: Cellular Subscriber Division
Hagenauer Str.47
65203 WIESBADEN
GERMANY
E-Mail Internet: tres01@email.mot.com

Tel 1: +49 611 3611 410
Tel 2: +49 611 3611 401
Mob : +49 171 850 8100
Fax 1: +49 611 260 439
Fax 2:

Name: **MALOBERTI Alain**
Company: FRANCE TELECOM
Address: FTM/DDD/DEV

Tel 1: +33 1 55 22 23 00
Tel 2:
Mob :

41-45 Boulevard Romain Rolland
75672 PARIS CEDEX 14
FRANCE

Fax 1: +33 1 55 22 23 23
Fax 2:

E-Mail Internet: alain.maloberti@francetelecom.fr

Name: **MANABE Hisashi**
Company: NEC UK LTD
Address: NEC House
1 Victoria Road
LONDON W3 6BL
UNITED KINGDOM

Tel 1: +44 1 81 993 8111
Tel 2:
Mob :
Fax 1:
Fax 2:

E-Mail Internet: manabe@uk.neceur.com

Name: **MARTIN CARBONERO Juan de Dios**
Company: SIEMENS
Address: Via Marsala 53

00185 ROMA
ITALY

Tel 1: +34 1 514 7254
Tel 2:
Mob : +34 09 070650
Fax 1: +34 1 514 7034
Fax 2:

E-Mail Internet: jmcarbonero@ssa.siemens.es

Name: **MASSE Yves**
Company: TEXAS INSTRUMENTS
Address: BP 5

06271 VILLENEUVE LOUBET CEDEX
FRANCE

Tel 1: +33 4 9322 2490
Tel 2:
Mob :
Fax 1: +33 4 93 22 27 40
Fax 2:

E-Mail Internet: y-masse@ti.com

Name: **MASSIET DU BIEST Bruno**
Company: SFR
Address:
212 Rue Raymond Losserand
75014 PARIS
FRANCE

Tel 1: +33 1 4044 3398
Tel 2:
Mob :
Fax 1: +33 1 4044 3579
Fax 2:

Name: **MATSUO Sakae**
Company: KENWOOD ELECTRONICS TECHNOLOGIES
Address: Azure House, Bagshot Road
Bracknell
BERKSHIRE RG12 95W
UNITED KINGDOM

Tel 1: +44 1 344 301 883
Tel 2:
Mob :
Fax 1: +44 1 344 300 293
Fax 2:

E-Mail Internet: s.matsuo@kenwood-europe.co.uk

Name: **MAUL Heino**
Company: LUCENT TECHNOLOGIES
Address: Thurn-und Taxis Str. 10

90411 NURNBERG

Tel 1: +49 911 526 3128
Tel 2:
Mob : +49 171 3080 772
Fax 1: +49 911 526 2979
Fax 2:

GERMANY
E-Mail Internet: hmaul@lucent.com

Name: **MAYES Keith**
Company: VODAFONE LTD
Address: The Courtyard
2-4 London Road Newbury
BERKSHIRE RG14 1JX
UNITED KINGDOM
E-Mail Internet: keith.mayes@vf.vodafone.co.uk

Tel 1: +44 1635 507196
Tel 2: +44 1635 33251
Mob : +44 370 801 262
Fax 1: +44 1635 506 947
Fax 2:

Name: **MCINTOSH Chris**
Company: WAVELINK LTD.
Address: Interwave Communications Inc.
656 Bair Island Road, Suite 108
Redwood City, CA 94063-2704
UNITED STATES
E-Mail Internet: chrism@iwv.com

Tel 1: +1 650 482 2137
Tel 2:
Mob :
Fax 1: 1 650 261 6220
Fax 2:

Name: **MEDEIROS Francisco**
Company: NEC TECHNOLOGIES (UK) LTD
Address: 5 Bath Rd. Berkshire

SLOUGH SL1 3UA
UNITED KINGDOM
E-Mail Internet: Medeiros@isd-nec.co.uk

Tel 1: +44 1 753 606 943
Tel 2:
Mob :
Fax 1: +44 1 753 606 901
Fax 2:

Name: **MEIDAN Reuven**
Company: IAEI
Address: MOTOROLA ISRAEL
16 Kremenetzki Street
TEL AVIV
ISRAEL
E-Mail Internet: bcms23@email.mot.com

Tel 1: +972 3 565 8128
Tel 2:
Mob : +972 50 232 006
Fax 1: +972 3 565 8620
Fax 2:

Name: **MEINERT-NIELSEN Herik**
Company: HAGENUK TELECOCM
Address: Oestre Alle 6

9530 STOEVRING
DENMARK
E-Mail Internet: hem@hagenuk.dk

Tel 1: +45 998 62315
Tel 2:
Mob : +45 4080 5341
Fax 1: +45 998 62201
Fax 2:

Name: **MEISSNER Peter**
Company: E-PLUS MOBILFUNK GmbH
Address: Ulmenstrasse 125
PO Box 30 03 07
40403 DÜSSELDORF
GERMANY

Tel 1: +49 211 448 2672
Tel 2:
Mob :
Fax 1: +49 211 448 2777
Fax 2:

E-Mail Internet: meissner@eplus.de

Name:	**MENG Tay Soo**	**Tel 1:**	+65 838 3902
Company:	SINGAPORE TELECOM MOBILE PTE LTD	**Tel 2:**	
Address:	31 Exeter Road, #05-00	**Mob :**	+65 9615 1799
	Comcentre	**Fax 1:**	+65 235 9497
	SINGAPORE 239732	**Fax 2:**	
	SINGAPORE		

E-Mail Internet: TSM%MLE%ML@SINGTEL.COM

Name:	**MICHAU Philippe**	**Tel 1:**	+33 1 4130 2746
Company:	THOMSON-CSF/DCH	**Tel 2:**	
Address:	160 Boulevard de Valmy	**Mob :**	
	BP. 82	**Fax 1:**	+33 1 4130 2221
	92704 COLOMBES	**Fax 2:**	
	FRANCE		

Name:	**MICHAUD Claude**	**Tel 1:**	+33 1 4063 9596
Company:	CHAIRMAN ETSI/TC/SES	**Tel 2:**	
Address:	ALCATEL ESPACE	**Mob :**	
	15 Rue Villaret de Joyeuse	**Fax 1:**	+33 1 4063 9697
	75017 PARIS	**Fax 2:**	
	FRANCE		

Name:	**MILLOT John**	**Tel 1:**	+61 3 9253 6254
Company:	TELECOM AUSTRALIA	**Tel 2:**	
Address:	Telecom Research Laboratories	**Mob :**	
	PO Box 249-Rosebank MDC	**Fax 1:**	+61 3 9253 6339
	CLAYTON VIC 3168	**Fax 2:**	
	AUSTRALIA		

E-Mail Internet: J.millot@trl.oz.au

Name:	**MILTIADOU Kimon**	**Tel 1:**	+ 44 1684 894028
Company:	DERA	**Tel 2:**	
Address:	St Andrews Road	**Mob :**	
	Malvern	**Fax 1:**	+ 44 1684 895646
	Worcestershire WR14 3PS	**Fax 2:**	
	UNITED KINGDOM		

Name:	**MISHENKOV Serge**	**Tel 1:**	+ 7 095 921 8130
Company:	MINISTRY of TELECOMMUNICATIONS	**Tel 2:**	+ 7 095 201 6046
Address:	RUSSIAN FEDERATION	**Mob :**	
	Tverskaya, 7 UV3ABH	**Fax 1:**	+ 7 095 230 2097
	103375 MOSCOW	**Fax 2:**	
	RUSSIA		

Name:	**MOHAMED Sultan**	**Tel 1:**	+44 1 473 626 990
Company:	TELETREK LTD	**Tel 2:**	

Address:	5 Heathfield	**Mob :**	
	Martlesham Heath	**Fax 1:**	+44 4 473 621 788
	IPSWICH IP5 7UB	**Fax 2:**	
	UNITED KINGDOM		
E-Mail Internet:	s.mohamed@teletrek.demon.co.uk		

Name:	**MOHEBI Behzad**	**Tel 1:**	+44 1816 064 841
Company:	FUJITSU EUROPE TELECOM R&D CENTRE LTD	**Tel 2:**	
Address:	2 Longwalk Rd	**Mob :**	+44 468 171 459
	Stockley Park, UXBRIDGE	**Fax 1:**	+44 181 606 4539
	MIDDLESEX UB11 1AB	**Fax 2:**	
	UNITED KINGDOM		
E-Mail Internet:	b.mohebbi@fujitsu.co.uk		

Name:	**MOHRS Walter**	**Tel 1:**	+49 228 936 1251
Company:	DeTeMobil GmbH	**Tel 2:**	
Address:	PO Box 300463	**Mob :**	
		Fax 1:	+49 228 936 1257
	53184 BONN	**Fax 2:**	
	GERMANY		
E-Mail Internet:	walter.mohrs@t-mobil.de		

Name:	**MOKDAD Mohamed**	**Tel 1:**	+41 31 338 9571
Company:	SWITZERLAND TELECOMLAND	**Tel 2:**	
Address:	ETSI/CS4 COORDINATION	**Mob :**	
	TZV, Zentweg 27	**Fax 1:**	+41 31 338 9903
	3030 BERN	**Fax 2:**	
	SWITZERLAND		
E-Mail Internet:	mohamed.mokdad@swisscom.com		

Name:	**MOLLER Soren**	**Tel 1:**	+45 99 86 22 00
Company:	CETELCO A/S	**Tel 2:**	
Address:	Ostre Allé 6	**Mob :**	
		Fax 1:	+45 99 86 22 01
	9530 STOVRING	**Fax 2:**	
	DENMARK		
E-Mail Internet:	soeren.moeller@cetelco.dk		

Name:	**MONTAGNA Roberto**	**Tel 1:**	+39 11 228 6111
Company:	STET-CSELT	**Tel 2:**	
Address:	Via G. Reiss Romoli 274	**Mob :**	
	Audio Coding	**Fax 1:**	+39 11 228 6190
	10148 TORINO	**Fax 2:**	
	ITALY		

Name:	**MORBITZER Holger**	**Tel 1:**	+49 221 59700 34
Company:	SCIENTIFIC CONSULTING	**Tel 2:**	
Address:	Mathias Brüggen Street 87-89	**Mob :**	
		Fax 1:	+49 221 5970090
	50829 COLOGNE	**Fax 2:**	
	GERMANY		

E-Mail Internet: holger.morbitzer@scientificconsulting.de

Name:	**MORENO Juan Antonio**	**Tel 1:**	+34 1 5846 653
Company:	TELEFONICA DE ESPANA	**Tel 2:**	
Address:		**Mob :**	
	Emilio Vargas, 4	**Fax 1:**	+34 1 5846 955
	28043 MADRID	**Fax 2:**	
	SPAIN		
E-Mail Internet:	jamg@tid.es		

Name:	**MORISON Max**	**Tel 1:**	+64 4 382 5939
Company:	TELECOM NEW ZEALAND	**Tel 2:**	
Address:	13-27 Manners Street	**Mob :**	
	P.O. Box 570	**Fax 1:**	+64 4 701 5417
	WELLINGTON	**Fax 2:**	
	NEW ZEALAND		
E-Mail Internet:	morison@corp.telecom.co.nz		

Name:	**MORITANI Yoichi**	**Tel 1:**	+81 467 47 2453
Company:	MITSUBISHI ELECTRIC	**Tel 2:**	
Address:	5-1-1 Ofuna Kamakura	**Mob :**	
		Fax 1:	+81 467 47 2487
	KANAGAWA 247	**Fax 2:**	
	JAPAN		
E-Mail Internet:	moritani@radio.isl.melco.co.jp		

Name:	**MORLEY Bob**	**Tel 1:**	+44 1252 775 200
Company:	ANITE SYSTEMS	**Tel 2:**	
Address:	Transport & Telecom Division	**Mob :**	
	127 Fleet Road, FLEET	**Fax 1:**	+44 1252 775 299
	HAMPSHIRE GU13 8PD	**Fax 2:**	
	UNITED KINGDOM		
E-Mail Internet:	bmorley@tandt.anitesystems.co.uk		

Name:	**MORTIMER Richard**	**Tel 1:**	+44 1344 300 681
Company:	KENWOOD ELECTRONICS TECHNOLOGIES	**Tel 2:**	
Address:	Azure House, Bagshot Road	**Mob :**	
	Bracknell	**Fax 1:**	+44 1344 300 293
	BERKSHIRE RG12 9SW	**Fax 2:**	
	UNITED KINGDOM		
E-Mail Internet:	r.morti@kenwood-europe.co.uk		

Name:	**MORTIMER William**	**Tel 1:**	+44 1908 221 122
Company:	HUGUES NETWORK SYSTEMS LTD	**Tel 2:**	
Address:	Saxon Street	**Mob :**	+44 1 802 256 711
		Fax 1:	+44 1908 221 127
	MILTON KEYNES MK14 6LD	**Fax 2:**	
	UNITED KINGDOM		
E-Mail Internet:	w-mortimer@hnsltd.hns.com		

Name:	**MOULY Michel**	**Tel 1:**	+33 1 6931 48 48
Company:	NORTEL	**Tel 2:**	
Address:	4, rue Elisee Reclus	**Mob :**	+33 6 07 59 41 76
		Fax 1:	+33 1 6931 0338
	91120 PALAISEAU	**Fax 2:**	
	FRANCE		
E-Mail Internet:	100046.2554@compuserve.com		

Name:	**MOURAVJEV Vladimir**	**Tel 1:**	+7 095 261 0259
Company:	NIIR STATE COMMITEE OF TELECOMM.	**Tel 2:**	
Address:	Kazakova Str. 16	**Mob :**	
		Fax 1:	+7 095 261 0090
	103064 MOSCOW	**Fax 2:**	
	RUSSIA		

Name:	**MUELLER Susanne**	**Tel 1:**	+ 4930 386 27033
Company:	TEKTRONIX BERLIN GMBH	**Tel 2:**	
Address:	Postfach 130173	**Mob :**	+ 4930 171 3089 887
		Fax 1:	+ 4930 386 225 24
	13601 BERLIN	**Fax 2:**	
	GERMANY		
E-Mail Internet:	susanne.mueller@blns.siemens.de		

Name:	**MÜHLDORFER Bernd**	**Tel 1:**	+49 89 14 80 31 52
Company:	VIAG INTERKOM	**Tel 2:**	
Address:	Dept Network Technology	**Mob :**	+49 172 884 1644
	Riesstrasse 25 - Atrium A	**Fax 1:**	+49 89 14 80 34 16
	80992 MUNCHEN	**Fax 2:**	
	GERMANY		
E-Mail Internet:	bmuehldorf@munich2.agw.bt.co.uk		

Name:	**MÜNNING Dirk**	**Tel 1:**	+49 228 700 1640
Company:	DETECON GmbH	**Tel 2:**	+33 4 9294 4290
Address:	Projekt PDB	**Mob :**	+49 171 640 1431
	Oberkasseler Strasse 2	**Fax 1:**	+49 228 700 1607
	53227 BONN	**Fax 2:**	+49 228 700 1606
	GERMANY		

Name:	**MYKHAYLOV Nick**	**Tel 1:**	+380 482 232 066
Company:	URTRI	**Tel 2:**	
Address:	31 R. Luxembourg St.	**Mob :**	
		Fax 1:	+380 482 224 583
	ODESSA 270026	**Fax 2:**	
	UKRAINE		

Name:	**NASCIMENTO José Pedro**	**Tel 1:**	+351 1722 5258
Company:	TELECEL SA	**Tel 2:**	
Address:	R. Tomás da Fonseca	**Mob :**	
	Torre A- 8°/D	**Fax 1:**	+351 1722 5882

1600 LISBOA
PORTUGAL
Fax 2:
E-Mail Internet: nascimento@torres.telecel.mailpac.pt

Name: **NEUENHÜSKES Klaus**
Company: OKI ELECTRIC EUROPE
Address: Hellersbergstr. 2

41460 NEUSS
GERMANY
Tel 1: +49 2131 15960
Tel 2:
Mob :
Fax 1: +49 231 103 539
Fax 2:
E-Mail Internet: kneu@oki-europe.de

Name: **NEUMANN Peter Dr.**
Company: SIEMENS AG
Address: PN KE TT41
Hofmannstraße 51
81359 MÜNCHEN
GERMANY
Tel 1: +49 89 722 36718
Tel 2:
Mob : +49 172 890 44 28
Fax 1: +49 89 722 37078
Fax 2:
E-Mail Internet: peter.neumann@pn.siemens.de

Name: **NIELSEN Henning Bjarke**
Company: SONY IPCE - M
Address: Heisenbergbogen 1

85609 MÜNCHEN
GERMANY
Tel 1: +49 89 94578 107
Tel 2:
Mob : +49 172 839 2670
Fax 1: +49 89 94578 444
Fax 2:
E-Mail Internet: nielsen@ipce.eu.sony.co.jp

Name: **NUGTER Adriana C.M.**
Company: GSM MoU ASSOCIATION
Address: Avenue Louise 480

1050 BRUSSELS
BELGIUM
Tel 1: +32 2 627 0790
Tel 2:
Mob :
Fax 1: +32 2 649 5808
Fax 2:
E-Mail Internet: adriana.nugter@airtouch.com

Name: **OHANA Alain**
Company: BELLSOUTH MOBILITY DCS
Address: 3353 Peachtree Road N.E.
Suite 300
ATLANGA, GEORGIA 30326
UNITED STATES
Tel 1: +1 972 517 0709
Tel 2:
Mob :
Fax 1: +1 404 841 2045
Fax 2:
E-Mail Internet: alain.ohana@pcs.bls.com

Name: **OLSSON Bo G.H.**
Company: TELIA RESEARCH AB
Address: Rudsjöterrassen 2

13680 HANINGE
SWEDEN
Tel 1: +46 8 707 5372
Tel 2:
Mob : +46 705 910065
Fax 1: +46 8 707 5310
Fax 2:
E-Mail Internet: bo.olsson@telia.se

Name:	**OTTO Bernd**	**Tel 1:**	+49 30 390 94153
Company:	CONDAT GmbH	**Tel 2:**	
Address:	Alt Moabit 91 D	**Mob :**	+49 171 8989403
		Fax 1:	+49 30 390 94300
	10559 BERLIN	**Fax 2:**	
	GERMANY		
E-Mail Internet:	otto@condat.de		

Name:	**PATTINI Franco**	**Tel 1:**	+39 11 228 5399
Company:	CSELT	**Tel 2:**	
Address:	Via G. Reiss Romoli 274	**Mob :**	
		Fax 1:	+39 11 228 5295
	10148 TORINO	**Fax 2:**	
	ITALY		
E-Mail Internet:	Franco.pattini@cselt.stet.it		

Name:	**PATZAK Wolfgang**	**Tel 1:**	+49 911 3788 245
Company:	DEBIS SYSTEMHAUS	**Tel 2:**	
Address:	Neutorgraben 1B	**Mob :**	
		Fax 1:	+49 911 3788 100
	90419 NURNBERG	**Fax 2:**	
	GERMANY		
E-Mail Internet:	wolfgang.patzak@telecom.nuernberg.cap-debis.de		

Name:	**PAULSSON Anders**	**Tel 1:**	+46 8 764 1146
Company:	ERICSSON RADIO SYSTEMS AB	**Tel 2:**	
Address:	Torshaumsgatan 23	**Mob :**	+46 70 556 0145
		Fax 1:	+46 70 612 9145
	16480 STOCKHOLM	**Fax 2:**	
	SWEDEN		
E-Mail Internet:	anders.paulsson@era.ericsson.se		

Name:	**PERRICHON Pierre**	**Tel 1:**	+33 1 4197 6721
Company:	SFR	**Tel 2:**	+33 1 4197 6722
Address:	GIE COFIRA	**Mob :**	+33 6 09 11 37 00
	Tour de l'Esplanade - 1 Place Carpeaux	**Fax 1:**	+33 1 419767 98
	92915 PARIS LA DEFENSE CEDEX	**Fax 2:**	
	FRANCE		
E-Mail Internet:	pierre.perrichon@mail1.sfr.fr		

Name:	**PETTERSSON Fredrik**	**Tel 1:**	+33 4 92 94 42 38
Company:	ETSI/PT SMG	**Tel 2:**	
Address:	650 Route des Lucioles	**Mob :**	+46 70 676 2060
		Fax 1:	+33 4 93 65 28 17
	06921 SOPHIA ANTIPOLIS CEDEX	**Fax 2:**	+46 70 612 2060
	FRANCE		
E-Mail Internet:	fredrik.pettersson@etsi.fr		

Name:	**PICHLER Johann**	**Tel 1:**	+43 1 51551 2821

Company:	PTT AUSTRIA	**Tel 2:**	
Address:	Postgasse 8	**Mob :**	
		Fax 1:	+43 1 513 0100
	1010 VIENNA	**Fax 2:**	+43 1 512 7387
	AUSTRIA		

Name:	**PIERCY Neil**	**Tel 1:**	+44 1 223 875 200
Company:	SCIENTIFIC GENERICS	**Tel 2:**	
Address:	Harston Mill	**Mob :**	
	Harston	**Fax 1:**	+44 1 223 875 201
	CAMBRIDGE CB2 5NH	**Fax 2:**	
	UNITED KINGDOM		
E-Mail Internet:	NPiercy@scigen.co.uk		

Name:	**PIKE Simon**	**Tel 1:**	+44 1 793 883 206
Company:	LUCENT TECHNOLOGIES	**Tel 2:**	
Address:	Optimus House	**Mob :**	
	Windmill Hill Business Park	**Fax 1:**	+44 1793 883 349
	SWINDON WILTSHIRE SN5 6PP	**Fax 2:**	
	UNITED KINGDOM		
E-Mail Internet:	spike2@lucent.com		

Name:	**PILLEKAMP Klaus-D.**	**Tel 1:**	+49 2871 91 2621
Company:	SIEMENS AG	**Tel 2:**	
Address:	PN KE T121	**Mob :**	+1 7281 23680
	Kaiser-Wilhelm-Str. 56	**Fax 1:**	+49 2871 913387
	46393 BOCHOLT	**Fax 2:**	
	GERMANY		
E-Mail Internet:	klaus.dieter.pillekamp@pn.siemens.de		

Name:	**POFF Richard**	**Tel 1:**	+353 1 6714 444
Company:	TELECOM EIREANN	**Tel 2:**	
Address:	Network Services Directorate	**Mob :**	
	St. Stephen's Green West	**Fax 1:**	+353 1 4784 831
	DUBLIN 2	**Fax 2:**	
	IRELAND		

Name:	**POLITANO Christian**	**Tel 1:**	+33 4 50 40 27 64
Company:	SGS-THOMSON MICROELECTRONICS	**Tel 2:**	+33 4 50 40 26 40
Address:	Technoparc du Pays de Gex	**Mob :**	
	165, rue Edouard Branly -BP 112	**Fax 1:**	+33 4 50 40 28 10
	01630 SAINT GENIS POUILLY	**Fax 2:**	
	FRANCE		
E-Mail Internet:	christian.politano@st.com		

Name:	**POOLE Steven John**	**Tel 1:**	+44 1 793 518 247
Company:	GEC Plessey Semiconductors	**Tel 2:**	
Address:	Cheney Manor	**Mob :**	
	Communication Business Unit	**Fax 1:**	+44 1 793 518 288
	SWINDON SN2 2QW	**Fax 2:**	

UNITED KINGDOM
E-Mail Internet: poolesj@cheney-po.swindon.gpsemi.com

Name:	**PORZIO GIUSTO Pietro**	**Tel 1:**	+39 6 3900 9020
Company:	TELECOM ITALIA MOBILE (STET)	**Tel 2:**	
Address:	Largo Tassoni 323	**Mob :**	+39 335 40 10 11
		Fax 1:	+39 6 3900 9033
	00186 ROMA	**Fax 2:**	
	ITALY		
E-Mail Internet:	timaau@tin.it		

Name:	**PTACEK Wolfgang**	**Tel 1:**	+49 228 936 3250
Company:	T-MOBIL	**Tel 2:**	
Address:	Landgrabanweg 151	**Mob :**	+49 171 200 3560
		Fax 1:	+49 228 936 3209
	53227 BONN	**Fax 2:**	
	GERMANY		
E-Mail Internet:	wolfgang.ptacek@t-mobil.de		

Name:	**PUGH Alan**	**Tel 1:**	+44 1 628 626062
Company:	PANASONIC STANDARDS OFFICE EUROPE	**Tel 2:**	
Address:	Berkshire House, Queen Street	**Mob :**	+44 385 242916
	Maidenhead	**Fax 1:**	+44 1 628 622 022
	BERKSHIRE SL6 1NF	**Fax 2:**	
	UNITED KINGDOM		
E-Mail Internet:	alan@mgcs.demon.co.uk		

Name:	**RADEV Valentin**	**Tel 1:**	+359 88 500 031
Company:	MOBITEL AD	**Tel 2:**	
Address:	25 Han Kroum Street	**Mob :**	+359 88 500584
		Fax 1:	+359 88 500032
	SOPHIA 1000	**Fax 2:**	
	BULGARIA		
E-Mail Internet:	valentin@mobiltel.bg		

Name:	**RAPELI Juha**	**Tel 1:**	+33 2 43 41 11 20
Company:	PHILIPS CONSUMER COMMUNICATIONS	**Tel 2:**	+33 2 43 41 52 52
Address:	Route d'Angers	**Mob :**	+358 400 682 596
		Fax 1:	+33 2 43 41 11 26
	72019 LE MANS CEDEX	**Fax 2:**	+33 2 43 41 16 12
	FRANCE		
E-Mail Internet:	juha.rapeli@lme.pcc.philips.com		

Name:	**REIBERGER Alexander**	**Tel 1:**	+49 221 597 0017
Company:	NEC	**Tel 2:**	
Address:	Mathias Brüggen Strasse	**Mob :**	
		Fax 1:	+49 221 597 0090
	50829 COLOGNE	**Fax 2:**	
	GERMANY		
E-Mail Internet:	alexander.reiberger@scientificconsulting		

Name:	**REICHL Wolfgang**	**Tel 1:**	+43 1 797 8028
Company:	OEFEG / AUSTRIA	**Tel 2:**	
Address:	PO Box 147	**Mob :**	+43 664 400 1700
	FZG Arsenal Objekt 24	**Fax 1:**	+43 1 797 8013
	1103 WIEN	**Fax 2:**	
	AUSTRIA		
E-Mail Internet:	rei@oefeg.co.at		

Name:	**REINARD KLaus**	**Tel 1:**	+49 6172 767 120
Company:	PEIKER	**Tel 2:**	+49 6172 767 140
Address:	Acustic GbmH & Co KG	**Mob :**	
	Max-Planck-Strasse 32	**Fax 1:**	+49 6172 72555
	61381 FRIEDRICHSDORF/TS	**Fax 2:**	
	GERMANY		

Name:	**REINSETH Björn**	**Tel 1:**	+47 22 88 8294
Company:	NETCOM GSM A/S	**Tel 2:**	
Address:	PO Box 4444	**Mob :**	+47 920 17239
	Torshov	**Fax 1:**	+47 2288 8494
	0403 OSLO	**Fax 2:**	
	NORWAY		
E-Mail Internet:	ber@netcom-gsm.no		

Name:	**REMY Jean Gabriel**	**Tel 1:**	+33 1 5568 3322
Company:	SFR	**Tel 2:**	
Address:	1, Place Carpeaux	**Mob :**	+33 6 09 71 11 99
	BP 601	**Fax 1:**	+33 1 55 68 33 25
	92915 PARIS LA DEFENSE CEDEX	**Fax 2:**	
	FRANCE		

Name:	**RICHARD Alain**	**Tel 1:**	+33 1 46 52 44 09
Company:	ALCATEL	**Tel 2:**	
Address:	5, rue Noel Pons	**Mob :**	+33 6 80 75 16 14
		Fax 1:	+33 1 46 52 45 96
	92734 NANTERRE	**Fax 2:**	
	FRANCE		
E-Mail Internet:	alain.richard@telspace.alcatel.fr		

Name:	**RICHARDS Derek**	**Tel 1:**	+44 1793 883 258
Company:	LUCENT TECHNOLOGIES	**Tel 2:**	
Address:	Sigma	**Mob :**	+ 44 468 940 696
	Windmill Hill - Business Park	**Fax 1:**	+ 44 1793 88 3815
	SWINDON, WILTSHIRE SN5 6PP	**Fax 2:**	
	UNITED KINGDOM		
E-Mail Internet:	djrichar@lucent.com		

Name:	**RICHTER Thomas**	**Tel 1:**	+49 911 2001 163
Company:	PHILIPS SEMICONDUCTORS	**Tel 2:**	+49 911 2001 101
Address:	TCMC	**Mob :**	+49 171 6015 959
	StromerStrasse 5-7	**Fax 1:**	+49 911 2001 102
	90443 NÜRNBERG	**Fax 2:**	
	GERMANY		
E-Mail Internet:	tri@nbg.sc.philips.com		

Name:	**RIJKS Erik**	**Tel 1:**	+32 2 533 3411
Company:	BELLSOUTH - EUROPE	**Tel 2:**	
Address:	Avenue Louise 65	**Mob :**	
	P.O.Box 3	**Fax 1:**	+32 2 539 2410
	1050 BRUSSELS	**Fax 2:**	
	BELGIUM		
E-Mail Internet:	erijks@arcadis.be		

Name:	**ROBINSON Bill**	**Tel 1:**	+44 1256 790 548
Company:	MOTOROLA LTD	**Tel 2:**	
Address:	London Road	**Mob :**	+44 771 507 472
	Old Basing, Basingstoke	**Fax 1:**	+44 1256 790 190
	HAMPSHIRE	**Fax 2:**	
	UNITED KINGDOM		
E-Mail Internet:	bill-robinson@euro.csg.mot.com		

Name:	**RODRIGUEZ Carole**	**Tel 1:**	+33 4 9294 4262
Company:	ETSI/PT SMG	**Tel 2:**	
Address:	650 Route des Lucioles	**Mob :**	
		Fax 1:	+33 4 93 65 28 17
	06921 SOPHIA ANTIPOLIS CEDEX	**Fax 2:**	
	FRANCE		
E-Mail Internet:	carole.rodriguez@etsi.fr		
X.400:	c=FR; a=ATLAS; p=ETSI; s=Rodriguez; g=Carole		

Name:	**ROMUNEN Jukka**	**Tel 1:**	+358 10 505 5462
Company:	NOKIA MOBILE PHONES	**Tel 2:**	
Address:	PO BOX 86	**Mob :**	+358 40556 5929
		Fax 1:	+358 10 505 4600
	24101 SALO	**Fax 2:**	
	FINLAND		
E-Mail Internet:	jukka.romunen@nmp.nokia.com		

Name:	**ROPER Stephen**	**Tel 1:**	+44 1256 855 450
Company:	RADIO FREQUENCY INVESTIGATION	**Tel 2:**	
Address:	Ewhurst Park, Ramsdell	**Mob :**	+44 385 290 092
	Basingstoke	**Fax 1:**	+44 1256 851 192
	HAMPSHIRE RG26 5RQ	**Fax 2:**	
	UNITED KINGDOM		
E-Mail Internet:	steve_roper@rfi.co.uk		

Name:	**ROTH Wolfgang**	**Tel 1:**	+49 228 936 3332
Company:	T-MOBIL	**Tel 2:**	

Address:	PO Box 300463	**Mob :**	+49 171 200 1274
		Fax 1:	+49 228 936 3329
	53184 BONN	**Fax 2:**	
	GERMANY		
E-Mail Internet:	Wolfgang.roth@bn.detemobil.de		

Name:	**ROUSSEAU Emmanuel**	**Tel 1:**	+33 1 4652 1264
Company:	ALCATEL MOBILE COMMUNICATION	**Tel 2:**	
Address:	32 Avenue Kléber	**Mob :**	+33 0 789 0195
		Fax 1:	+33 1 4652 8024
	92707 COLOMBES CEDEX	**Fax 2:**	
	FRANCE		
E-Mail Internet:	emmanuel.rousseau@art.alcatel.fr		

Name:	**RUPP Dieter**	**Tel 1:**	+49 731 505 1545
Company:	MATRA COMMUNICATION CELLULAR TERM.	**Tel 2:**	
Address:	PO Box 1865	**Mob :**	+49 171 225 7045
	Wilhelm Runge Strasse 11	**Fax 1:**	+49 731 505 1808
	89081 ULM	**Fax 2:**	
	GERMANY		
E-Mail Internet:	dieter.rupp@amc.de		

Name:	**SABATAKAKIS Kyriacos**	**Tel 1:**	+41 38 205 587
Company:	CSEM	**Tel 2:**	
Address:	PRO TELECOM	**Mob :**	
	Jaquet Droz 1 - PO Box 41	**Fax 1:**	+41 38 205 720
	2000 NEUCHATEL	**Fax 2:**	
	SWITZERLAND		

Name:	**SAMUKIC Antun**	**Tel 1:**	+33 4 92 94 43 52
Company:	ETSI/PT SMG	**Tel 2:**	
Address:	650 Route des Lucioles	**Mob :**	+33 6 11 74 42 09
		Fax 1:	+33 4 93 65 28 17
	06921 SOPHIA ANTIPOLIS CEDEX	**Fax 2:**	
	FRANCE		
E-Mail Internet:	antun.samukic@etsi.fr		
X.400:	c=FR, a=ATLAS, p=ETSI, g=Antun, s=Samukic		

Name:	**SANCHEZ Thomas**	**Tel 1:**	
Company:	MOTOROLA	**Tel 2:**	
Address:	1301 E. Alonguin Rd	**Mob :**	
	Schauburg	**Fax 1:**	
	ILLINOIS 60196	**Fax 2:**	
	UNITED STATES		

Name:	**SANDEGREN Gunnar**	**Tel 1:**	+46 8 757 2507
Company:	ERICSSON RADIO SYSTEMS AB	**Tel 2:**	
Address:	Torshamnsgatan 23	**Mob :**	+46 70 591 2507
	KISTA	**Fax 1:**	+46 8 404 8040

16480 STOCKHOLM
SWEDEN
Fax 2:
E-Mail Internet: gunnar.sandegren@era.ericsson.se

Name: **SANDERS Eric A**
Company: SCANDEW PTY LTD
Address: Daw Park
PO Box 80
5041 AUS SOUTH AUSTRALIA
AUSTRALIA
Tel 1: +61 8373 2495
Tel 2:
Mob :
Fax 1: +61 8373 2495
Fax 2:

Name: **SANDERS Michael**
Company: ETSI/PT SMG
Address: 650 Route des Lucioles
06921 SOPHIA ANTIPOLIS CEDEX
FRANCE
Tel 1: +33 4 92 94 42 90
Tel 2:
Mob :
Fax 1: +33 4 93 65 28 17
Fax 2:
E-Mail Internet: michael.sanders@etsi.fr
X.400: c=FR; a=ATLAS; p=ETSI; s=Sanders; g=Michael

Name: **SANT'AGOSTINO Marcello**
Company: ITALTEL SIT
Address: c/o ITALTEL Castelletto CI1A
Castelleto Settimo Mi.
20019 MILANO
ITALY
Tel 1: +39 2 4388 7118
Tel 2:
Mob : +39 335 20 15 45
Fax 1: +39 2 4388 8390
Fax 2:
E-Mail Internet: marcello.sant'agostino@italtel.it

Name: **SAYERS Ian**
Company: FUJITSU EUROPE TELECOM
Address: R&D Centre Ltd
2 Longwalk Road, Stockley Park
UXBRIDGE MIDDX UB11 1AB
UNITED KINGDOM
Tel 1: +44 181 606 4663
Tel 2:
Mob :
Fax 1: +44 181 573 3602
Fax 2:
E-Mail Internet: i.sayers@fujitsu.co.uk

Name: **SCHARF-KATZ Volkmar**
Company: DETECON GmbH
Address: Oberkasseler Strasse 2
53227 BONN
GERMANY
Tel 1: +49 171 544 5703
Tel 2:
Mob :
Fax 1: +49 171 544 5704
Fax 2:
E-Mail Internet: vskdtc@ibm.net

Name: **SCHMIDT Stephan**
Company: AEG MOBILE COMMUNICATION GmbH
Address:
Wilhelm-Runge Strasse 11
89081 ULM
GERMANY
Tel 1: +49 731 505 1654
Tel 2:
Mob : +49 172 731 9174
Fax 1: +49 731 505 1808
Fax 2:

E-Mail Internet: stephan.schmidt@amc.de

Name:	**SCHNEELOCH Andreas**	**Tel 1:**	+49 911 5217 246
Company:	ERICSSON EUROLAB DEUTSCHLAND GmbH	**Tel 2:**	
Address:	Nordostpark 12	**Mob :**	
		Fax 1:	+49 911 5217 952
	90411 NÜRNBERG	**Fax 2:**	
	GERMANY		

E-Mail Internet: andreas.schneeloch@eedn.ericsson.se

Name:	**SCHULTE-DÖINGHAUS Bernhard**	**Tel 1:**	+49 8142 303 177
Company:	WINTER WERTDRUCK GmbH	**Tel 2:**	
Address:	Postfach 1280	**Mob :**	
		Fax 1:	+49 8142 303 170
	82134 NEU-ESTING/MÜNCHEN	**Fax 2:**	
	GERMANY		

E-Mail Internet: BSchulteD@AOL.com

Name:	**SCHWARZ Holger**	**Tel 1:**	+49 211 448 4782
Company:	E-PLUS MOBILFUNK GmbH	**Tel 2:**	
Address:	E-Plus-Platz	**Mob :**	+49 177 448 4782
		Fax 1:	+49 211 448 4046
	40468 DUSSELDORF	**Fax 2:**	
	GERMANY		

E-Mail Internet: holger.schwarz@eplus.de

Name:	**SCZEPANSKI Simone**	**Tel 1:**	+33 4 92 94 42 66
Company:	ETSI/PT SMG	**Tel 2:**	
Address:	650 Route des Lucioles	**Mob :**	
		Fax 1:	+33 4 93 65 28 17
	06921 SOPHIA ANTIPOLIS CEDEX	**Fax 2:**	
	FRANCE		

E-Mail Internet: simone.sczepanski@etsi.fr

Name:	**SEIDEL Eiko**	**Tel 1:**	+49 6103 766160
Company:	PANASONIC EUROPEAN LABORATORIES GmbH	**Tel 2:**	
Address:	Monzastr. 4c	**Mob :**	
		Fax 1:	+49 6103 766 144
	63225 LANGEN	**Fax 2:**	
	GERMANY		

E-Mail Internet: eiko.seidel@panasonic.de

Name:	**SHAKHGILDIAN Vagan**	**Tel 1:**	+44 1793 566 228
Company:	MOTOROLA	**Tel 2:**	+44 1793 541541
Address:	16 Euroway	**Mob :**	
	Blagrove, Swindon	**Fax 1:**	+44 1793 566225
	WILTSHIRE SN5 8YQ	**Fax 2:**	
	UNITED KINGDOM		

E-Mail Internet: shakhgiv@ecid.cig.mot.com

Name:	**SHEN Ming**	**Tel 1:**	+ 86 10 6463 22 88

Company:	ERICSSON CHINA CO. Ltd.	**Tel 2:**	
Address:	Ericsson Telecom Plaza, No.9,East	**Mob :**	+ 86 139 111 01 09
	Dongfang Road, North Dong san huan	**Fax 1:**	+ 86 10 646 154 08
	Beijing 100027	**Fax 2:**	
	CHINA		

Name:	**SHIMO Norio**	**Tel 1:**	+49 711 5858 160
Company:	SONY INTERNATIONAL	**Tel 2:**	
Address:	Stuttgarter Strasse 106	**Mob :**	
		Fax 1:	
	70736 FELLBACH (STUTTGART)	**Fax 2:**	
	GERMANY		

Name:	**SILVA Nuno**	**Tel 1:**	+351 9 722 5890
Company:	TELECEL SA	**Tel 2:**	
Address:	Centro empresarial Torres de Lisboa	**Mob :**	+351 931 542 636
	R. Tomas da Fonseca Torre A	**Fax 1:**	+351 1 722 5882
	1600 LISBOA	**Fax 2:**	
	PORTUGAL		
E-Mail Internet:	silvanum@telecel.pt		

Name:	**SIMMONS Paul**	**Tel 1:**	+33 1 39 44 55 95
Company:	NORTEL	**Tel 2:**	
Address:	NMC, 1 Place des Freres Montgolfier	**Mob :**	+33 6 07 21 01 72
	BP 50	**Fax 1:**	+33 1 39 44 50 02
	78042 GUYANCOURT	**Fax 2:**	
	FRANCE		
E-Mail Internet:	simmonsp@nortel.com		

Name:	**SIMOLA Juha**	**Tel 1:**	+358 2 77400
Company:	BENEFON OY	**Tel 2:**	
Address:	PO Box 84	**Mob :**	+358 50 5553343
		Fax 1:	+358 2 7740333
	24100 SALO	**Fax 2:**	
	FINLAND		
E-Mail Internet:	juha.simola@benefon.fi		

Name:	**SIMON Tamàs**	**Tel 1:**	+36 1 270 4130
Company:	PANNON GSM	**Tel 2:**	
Address:	Baross U. 165	**Mob :**	
		Fax 1:	+36 1 270 4110
	2040 BUDAORS	**Fax 2:**	
	HUNGARY		

Name:	**SIMONIC Tomaz**	**Tel 1:**	+386 61 1313 033
Company:	MOBITEL SLOVENIA	**Tel 2:**	
Address:	Dunajska 22	**Mob :**	+386 416 11242
		Fax 1:	+386 61 132 1144
	1000 LJUBLJANA	**Fax 2:**	
	SLOVENIA		
E-Mail Internet:	tomaz.simonic@mobitel.si		

Name:	**SKÖLD Johan**	**Tel 1:**	+46 8 757 23 92
Company:	ERICSSON RADIO SYSTEMS AB	**Tel 2:**	
Address:	Torshamnsgatan 23	**Mob :**	+46 70 561 4302
	KISTA	**Fax 1:**	+46 8 757 55 50
	164 80 STOCKHOLM	**Fax 2:**	
	SWEDEN		
E-Mail Internet:	johan.skold@era-t.ericsson.se		

Name:	**SLOAN Joe**	**Tel 1:**	+353 1 609 5288
Company:	ESAT DIGIFONE	**Tel 2:**	
Address:	76 Lower Baggat Street	**Mob :**	+353 86 814 5288
		Fax 1:	+353 1 619 5288
	DUBLIN 2	**Fax 2:**	
	IRELAND		
E-Mail Internet:	joe.sloan@digifone.com		

Name:	**STREHL Jorg**	**Tel 1:**	+49 201 12 204 20
Company:	RWE Telliance AG	**Tel 2:**	
Address:	Gutenbergstrasse	**Mob :**	+ 49 172 8088 335
		Fax 1:	+49 201 12 20382
	45128 ESSEN	**Fax 2:**	
	GERMANY		
E-Mail Internet:	joerg.strehl@rwe-telliance.de		

Name:	**SUBA Janos**	**Tel 1:**	+ 36 1 464 6000
Company:	PANNON GSM	**Tel 2:**	
Address:	Baross u. 165	**Mob :**	+ 36 20 302 996
		Fax 1:	+ 36 1 464 6100
	2040 BUDAÖRS	**Fax 2:**	
	HUNGARY		
E-Mail Internet:	jsuba@pgsm.hu		

Name:	**SUKDEO Roy**	**Tel 1:**	+31 30 233 93 00
Company:	CMG	**Tel 2:**	
Address:	PO Box 8038	**Mob :**	
	Nieuwekade 1	**Fax 1:**	+31 30 233 94 95
	3503 RA UTRECHT	**Fax 2:**	
	THE NETHERLANDS		
E-Mail Internet:	roy.sukdeo@cmg.nl		

Name:	**SULTAN Alain**	**Tel 1:**	+33 1 45 29 61 01
Company:	FRANCE TELECOM	**Tel 2:**	
Address:	CNET/DMR/SCM	**Mob :**	
	38-40 rue du Général Leclerc	**Fax 1:**	+33 1 45 29 43 99
	92794 ISSY MOULINEAUX CEDEX 9	**Fax 2:**	
	FRANCE		
E-Mail Internet:	alain.sultan@cnet.francetelecom.fr		

Name:	**SUNDBORG Jonas**	**Tel 1:**	+46 8 404 8035

Company:	ERICSSON RADIO SYSTEMS AB	**Tel 2:**	
Address:	ERA/LB	**Mob :**	+46 70 6748035
		Fax 1:	+46 8 404 8040
	164 80 STOCKHOLM	**Fax 2:**	+46 70 616 8035
	SWEDEN		
E-Mail Internet:	jonas.sundborg@era.ericsson.se		

Name:	**SZCZESNIAK Michal**	**Tel 1:**	+48 22 607 1986
Company:	POLKOMTEL SA	**Tel 2:**	
Address:	Ostrobramska 756	**Mob :**	+48 601 200 268
		Fax 1:	+48 22 607 5114
	WARSAW 04 175	**Fax 2:**	
	POLAND		
E-Mail Internet:	michal.szczesniak@polkomtel.com.pl		

Name:	**TARAZI Roger**	**Tel 1:**	+33 4 92 94 42 28
Company:	ETSI/PT SMG	**Tel 2:**	
Address:	650 Route des Lucioles	**Mob :**	
		Fax 1:	+33 4 93 65 28 17
	06921 SOPHIA ANTIPOLIS CEDEX	**Fax 2:**	
	FRANCE		
E-Mail Internet:	roger.tarazi@etsi.fr		

Name:	**TENDYCK Heiner**	**Tel 1:**	+49 211 5296 275
Company:	TOSHIBA ELECTRONICS GmbH	**Tel 2:**	
Address:	System Engineering Dept.	**Mob :**	
	Hansaallee 181	**Fax 1:**	+49 211 5296 404
	40549 DUSSELDORF	**Fax 2:**	
	GERMANY		
E-Mail Internet:	htendyck@tee.toshiba.de		

Name:	**THIGER Hans**	**Tel 1:**	+358 2040 3590
Company:	TELECOM FINLAND	**Tel 2:**	
Address:	Mobile Telephone Services	**Mob :**	+358 400 400 188
	PO Box 049	**Fax 1:**	+358 2040 3873
	00051 TELE	**Fax 2:**	
	FINLAND		
E-Mail Internet:	hans.thiger@tele.fi		

Name:	**THIRION Philippe**	**Tel 1:**	+33 4 9211 4682
Company:	CER - IBM	**Tel 2:**	
Address:	Departement 943	**Mob :**	
	Le plan du Bois	**Fax 1:**	+33 4 9324 4883
	06610 LA GAUDE	**Fax 2:**	
	FRANCE		
E-Mail Internet:	pthirion@vnet.ibm.com		

Name:	**THOMAS Rémi**	**Tel 1:**	+33 1 4529 6407
Company:	FRANCE TELECOM	**Tel 2:**	
Address:	CNET/DMR/ACM	**Mob :**	+33 0701 2235
	38-40 Rue Général Leclerc	**Fax 1:**	+33 1 4529 6307
	92794 ISSY MOULINEAUX CEDEX 9	**Fax 2:**	

FRANCE
E-Mail Internet: remi.thomas@francetelecom.fr

Name: **THOMAS Stephen E.**
Company: THE TECHNOLOGY PARTNERSHIP
Address: Melbourn Science Park
Cambridge Road, Melbourn, Royston
HERTFORDSHIRE SG8 6EE
UNITED KINGDOM
E-Mail Internet: set@techprt.co.uk

Tel 1: +44 1763 262 626
Tel 2:
Mob :
Fax 1: +44 1763 261 582
Fax 2:

Name: **THORLBY Paul**
Company: DEFENSE RESEARCH AGENCY
Address: St. Andrews Road
Malvern
WORESTERSHIRE WR14 3PS
UNITED KINGDOM
E-Mail Internet: jpthorlby@dera.gov.uk

Tel 1: +44 1684 895 030
Tel 2:
Mob :
Fax 1: +44 1684 895 646
Fax 2:

Name: **TIURANIEMI Riitta**
Company: OMNITELE LTD
Address: PO Box 969

00101 HELSINKI
FNLAND
E-Mail Internet: riitta.turaniemi@omnitele.fi

Tel 1: +358 9 6959 9250
Tel 2:
Mob : +358 50 1992
Fax 1: +358 9 177 182
Fax 2:

Name: **TOEPFER Armin**
Company: MANNESMANN MOBILFUNK GmbH
Address: Am Seestern 1

40543 DÜSSELDORF
GERMANY
E-Mail Internet: armin.toepfer@d2privat.mmo.de

Tel 1: +49 211 533 2838
Tel 2:
Mob : +49 172 2100 748
Fax 1: +49 211 533 2804
Fax 2: Mob +49 1722106 795

Name: **TOGNETTI Guido**
Company: TELITAL
Address: Via Stazione di Prosecco 5/b

34010 SGONICO TRIESTE
ITALY
E-Mail Internet: guido.tognetti@telital.com

Tel 1: +39 40 41 92 359
Tel 2:
Mob :
Fax 1: +39 40 25 11 22
Fax 2:

Name: **TOMPKINS Robert W.**
Company: ICO GLOBAL COMMUNICATIONS
Address: 16 Garden Close

WATFORD WD1 3DP
UNITED KINGDOM
E-Mail Internet: robert.tompkins@mcmail.com

Tel 1: +44 1 923 224 538
Tel 2:
Mob :
Fax 1: +44 1 923 3366 35
Fax 2:

Name:	**TONELLI Paola**	**Tel 1:**	+1 510 210 3445
Company:	AIRTOUCH EUROPE	**Tel 2:**	
Address:	2999 Oak Rd	**Mob :**	+1 510 220 7797
		Fax 1:	+1 510 210 3469
	WALNUT CREEK, CA 94596	**Fax 2:**	
	UNITED STATES		
E-Mail Internet:	paola.tonelli@airtouch.com		

Name:	**TROFIMOV Iouri**	**Tel 1:**	+7 095 267 3883
Company:	RADIO RESEARCH INSTITUTE NIIR	**Tel 2:**	
Address:	MPT of RUSSIA	**Mob :**	
	Kazakova Str. 16	**Fax 1:**	+7 095 267 1310
	103064 MOSCOW	**Fax 2:**	
	RUSSIA		
E-Mail Internet:	trofjk@dol.ru		

Name:	**TWINGLER Jonas**	**Tel 1:**	+1 901 624 4450
Company:	CELCORE INC	**Tel 2:**	
Address:	3800 Forest Hill Irene Road	**Mob :**	+1 901 340 4054
	Memphis	**Fax 1:**	+1 901 624 4100
	TENNESSEE 38125	**Fax 2:**	
	UNITED STATES		
E-Mail Internet:	jtwingler@celcore.com		

Name:	**URIE Alistair**	**Tel 1:**	+33 1 3077 3623
Company:	ALCATEL TELECOM	**Tel 2:**	
Address:	MCD/CPG	**Mob :**	+33 6 0841 7445
	10, rue Latécoère	**Fax 1:**	+33 1 30 77 08 88
	78141 VELIZY CEDEX	**Fax 2:**	
	FRANCE		
E-Mail Internet:	alistair.urie@vz.cit.alcatel.fr		

Name:	**USAI Paolo**	**Tel 1:**	+33 4 92 94 42 36
Company:	ETSI/PT SMG	**Tel 2:**	+33 4 92 94 42 66
Address:	650 Route des Lucioles	**Mob :**	+39 335 387 164
		Fax 1:	+33 4 93 65 28 17
	06921 SOPHIA ANTIPOLIS CEDEX	**Fax 2:**	
	FRANCE		
E-Mail Internet:	paolo.usai@etsi.fr		

Name:	**VADGAMA Sunil**	**Tel 1:**	+44 1 81 573 4444
Company:	FUJITSU EUROPE TELECOM	**Tel 2:**	
Address:	R&D Centre Limited	**Mob :**	
	2 Longwalk Rd/Stockley Park	**Fax 1:**	+44 1 81 573 3602
	UXBRIDGE MIDDX UB11 1AB	**Fax 2:**	+44 1 81 606 4539
	UNITED KINGDOM		
E-Mail Internet:	s.vadgama@fujitsu.co.uk		

Name:	**VAINIKKA Jari**	**Tel 1:**	+358 9 5113 8374

Company:	NOKIA TELECOMMUNICATIONS OY	**Tel 2:**	
Address:	PO BOX 300	**Mob :**	+358 40 511 88 66
		Fax 1:	+358 9 5113 8506
	00045 NOKIA GROUP	**Fax 2:**	
	FINLAND		
E-Mail Internet:	Jari.vainikka@ntc.nokia.com		

Name:	**VALERIO Fausto**	**Tel 1:**	+39 6 7258 2320
Company:	ERICSSON TELECOMUNICAZIONI SPA	**Tel 2:**	
Address:	Via Anagnina 203	**Mob :**	
		Fax 1:	+39 6 7258 3422
	00040 ROMA	**Fax 2:**	
	ITALY		

Name:	**VALME Niclas**	**Tel 1:**	+46 8 707 4663
Company:	TELIA MOBILE AB	**Tel 2:**	
Address:	Rudsjoterrassen 2	**Mob :**	+46 705884663
		Fax 1:	+46 70 611 4663
	13680 HANINGE	**Fax 2:**	
	SWEDEN		
E-Mail Internet:	nic@hk.mobile.telia.se		

Name:	**VALTA Ekkehard**	**Tel 1:**	+49 6131 18 2229
Company:	BAPT / BUNDESAMT FÜR P&T	**Tel 2:**	
Address:	Canisiusstr. 21	**Mob :**	
	PO Box 8001	**Fax 1:**	+49 6131 18 5613
	55003 MAINZ	**Fax 2:**	
	GERMANY		
E-Mail Internet:	valta@bapt.de		

Name:	**VAN BOKHORST Ruud**	**Tel 1:**	+31 35 689 35 61
Company:	PHILIPS BUSINESS COMMUNICATIONS	**Tel 2:**	
Address:	Anth. Fokkerweg 5	**Mob :**	
	P.O. Box 32	**Fax 1:**	+31 35 689 10 30
	1200 JD HILVERSUM	**Fax 2:**	
	THE NETHERLANDS		
E-Mail Internet:	bokhors1@nlhsmbcs.snads.philips.nl		

Name:	**VAN DER AREND Peter**	**Tel 1:**	+33 4 9294 4231
Company:	ETSI/PT SMG	**Tel 2:**	+33 4 9294 4262
Address:	650 Route des Lucioles	**Mob :**	
		Fax 1:	+33 4 93 65 28 17
	06921 SOPHIA ANTIPOLIS CEDEX	**Fax 2:**	
	FRANCE		
E-Mail Internet:	peter.vanderarend@etsi.fr		
X.400:	c=FR; a=ATLAS; p=ETSI; s=VanderArend; g=Peter		

Name:	**VAN DONINCK Chris**	**Tel 1:**	+32 2 205 4508
Company:	BELGACOM MOBILE	**Tel 2:**	+32 2 205 4526
Address:	Rue Emile Jacqmain 157	**Mob :**	+32 75 115 175
		Fax 1:	+32 2 205 4085

1210 BRUSSELS
BELGIUM
Fax 2:

E-Mail Internet: Chris.van.doninck@ls.belgacom.be

Name: **VAN VELTHOVEN Herman**
Company: PIONEER ELECTRONIC EUROPE
Address: Joseph Cardijnstraat 31

9420 ERPE-MERE
BELGIUM
Tel 1: +32 53 821 3 16
Tel 2:
Mob :
Fax 1: +32 53 821 300
Fax 2:

E-Mail Internet: hvv@club.innet.be

Name: **VANNAI Nàndor**
Company: WESTEL 900
Address: 5-7 Kaposvar ut.

1117 BUDAPEST
HUNGARY
Tel 1: +36 1 265 9003
Tel 2:
Mob :
Fax 1: +36 1 265 9123
Fax 2:

Name: **VASS Robert**
Company: ERICSSON MOBILE COMMUNICATIONS
Address:

221 83 LUND
SWEDEN
Tel 1: +46 46 193720
Tel 2:
Mob : +46 705 507023
Fax 1: +4646 193810
Fax 2:

E-Mail Internet: robert.vass@ecs.ericsson.se

Name: **VASSILIOU Marie-Michèle**
Company: ALCATEL MOBILE PHONES
Address: 32 Avenue Kleber
BP 26
92707 COLOMBES CEDEX
FRANCE
Tel 1: +33 1 4652 1693
Tel 2:
Mob :
Fax 1: +33 1 4652 8270
Fax 2:

E-Mail Internet: marie-michele.vassiliou@art.alcatel.fr

Name: **VEDDER Klaus**
Company: GIESECKE & DEVRIENT GmbH
Address: Prinzregentenstr.159
Postfach 80 07 29
81607 MÜNCHEN
GERMANY
Tel 1: +49 89 4119 1542
Tel 2:
Mob :
Fax 1: +49 89 4119 1540
Fax 2:

Name: **VERBESTEL Willy**
Company: MOTOROLA SATCOM
Address: 2501 S.Price Road
G-1218
CHANDLER, AZ 85248-2899
UNITED STATES
Tel 1: +1 602 732 2339
Tel 2:
Mob : +49 171 8566592
Fax 1: +1 602 732 5176
Fax 2:

E-Mail Internet: P26458@email.mot.com

Name: **VERCAUTEREN Leo**
Tel 1: + 323 240 88 89

Company:	ALCATEL BELL	**Tel 2:**	
Address:	Francis Wellensplein 1	**Mob :**	+32 7 558 3114
		Fax 1:	+ 323 240 99 32
	2018 ANTWERPEN	**Fax 2:**	
	BELGIUM		
E-Mail Internet:	cauterle@btmaa.bel.alcatel.be		

Name:	**VIVERO BLAS Ramon**	**Tel 1:**	+34 1 396 2682
Company:	DIRECCION GENERAL TELECOM	**Tel 2:**	
Address:	Palacio de Comunicaciones	**Mob :**	
	Plaza de Cibeles, S/N	**Fax 1:**	+34 1 346 1566
	28014 MADRID	**Fax 2:**	
	SPAIN		
E-Mail Internet:	ramon.vivero@dgtel.mop.es		

Name:	**VOLL Liv Oddrun**	**Tel 1:**	+47 22 82 48 69
Company:	TELECOMMUNICATIONS AUTHORITY	**Tel 2:**	
Address:	PO 447	**Mob :**	
		Fax 1:	+47 22 82 48 90
	0104 OSLO	**Fax 2:**	
	NORWAY		
E-Mail Internet:	liv.voll@npt.no		

Name:	**VOSTERS Jean**	**Tel 1:**	+32 3 240 7541
Company:	ALCATEL BELL	**Tel 2:**	
Address:	1, Pl. Francis Wellesplein	**Mob :**	+32 75 83 61 96
		Fax 1:	+32 3 240 9916
	2018 ANTWERPEN	**Fax 2:**	
	BELGIUM		
E-Mail Internet:	vostersj@se.bel.alcatel.be		

Name:	**WALLACE Christopher**	**Tel 1:**	+1 972 257 9947
Company:	NOKIA INC.	**Tel 2:**	
Address:	2300 Valley View Lane	**Mob :**	+1 917 980 5595
	Suite 100	**Fax 1:**	+1 972 257 9988
	IRVING, TEXAS 75062	**Fax 2:**	
	UNITED STATES		
E-Mail Internet:	chris.wallace@ntc.nokia.com		

Name:	**WALTER Knut Erik**	**Tel 1:**	+47 2278 5525
Company:	TELENOR MOBIL AS	**Tel 2:**	
Address:	PO Box 6746	**Mob :**	+47 9002 2727
	St.Olavs Plass	**Fax 1:**	+47 2278 5500
	0130 OSLO	**Fax 2:**	
	NORWAY		
E-Mail Internet:	Knut-erik.walter@oslo.mobil.telenor.telemax.no		

Name:	**WALTERS Daniel**	**Tel 1:**	+44 1 753 500096
Company:	MOTOROLA LTD	**Tel 2:**	
Address:	110 Bath Road	**Mob :**	+44 410 460282
	Slough	**Fax 1:**	+44 1 753 534 245

BERKSHIRE SL13SZ
UNITED KINGDOM
Fax 2:
E-Mail Internet: cdu2009@email.mot.com

Name: **WATANABE Kunio**
Company: ARIB AND JAPAN
Address: 4-1-1 Kamistodanaka
Nakahara-Ku
KAWASAKI 211-88
JAPAN
Tel 1: +81 44 754 3850
Tel 2:
Mob :
Fax 1: +81 44 754 3880
Fax 2:
E-Mail Internet: watanabe@mcws.ts.fujitsu.co.jp

Name: **WATKINS Michael**
Company: RAILTRACK PLC
Address: Fitzroy House
355 Euston Road
LONDON NW1 3AG
UNITED KINGDOM
Tel 1: +44 171 830 5563
Tel 2:
Mob : +44 385 320 006
Fax 1: +44 171 830 5976
Fax 2:

Name: **WATSON Andrew W.D.**
Company: MOTOROLA E.C.I.D
Address: 16 Euroway
Blagrove 2
SWINDON SN5 8YW
UNITED KINGDOM
Tel 1: +44 1 793 566 230
Tel 2:
Mob : +44 385 318 522
Fax 1: +44 1 793 484 230
Fax 2:
E-Mail Internet: Watsona@ecid.cig.mot.com

Name: **WEILER Dirk**
Company: SIEMENS AG
Address: MN P2
Hofmannstr.51
81359 MÜNCHEN
GERMANY
Tel 1: +49 89 722 26203
Tel 2:
Mob : +49 171 334 0791
Fax 1: +49 89 722 21882
Fax 2: +49 89 722 57185
E-Mail Internet: Dirk.Weiler@mn.oen.siemens.de

Name: **WEST Jonathan**
Company: ETSI/PT SMG
Address: 650 Route des Lucioles

06921 SOPHIA ANTIPOLIS CEDEX
FRANCE
Tel 1: +33 4 9294 4321
Tel 2:
Mob :
Fax 1: +33 4 93 65 28 17
Fax 2:
E-Mail Internet: jonathan.west@etsi.fr
X.400: c=FR; a=ATLAS; p=ETSI; s=West; g=Jonathan

Name: **WHITE David**
Company: I.T. DIRECTION Ltd.
Address: 20-22, Bedford Row
Tel 1: +44 1 71 242 0077
Tel 2:
Mob :
Fax 1: +44 1 71 405 0444

LONDON WC1R 4EB
UNITED KINGDOM

Fax 2:

Name: **WIEBKE Thomas**
Company: PANASONIC DEUTSCHLAND
Address: Monzastr. 4c

63225 LANGEN
GERMANY
E-Mail Internet: wiebke@panasonic.de

Tel 1: +49 6103 766 161
Tel 2:
Mob :
Fax 1: +49 6103 766 166
Fax 2:

Name: **WIEDERMANN Werner**
Company: MOBILKOM AUSTRIA AG
Address: Treustrasse 43

1200 WIEN
AUSTRIA
E-Mail Internet: w.wiedermann@mobilkom.at

Tel 1: +43 1 33161 6000
Tel 2:
Mob :
Fax 1: +43 1 33161 6009
Fax 2:

Name: **WIENER Anthony**
Company: ONE-2-ONE
Address: Imperial Place
Maxwell Road, Borehamwood
HERTZ WD6 1EA
UNITED KINGDOM
E-Mail Internet: twiener@one2one.co.uk

Tel 1: +44 1 81 214 2290
Tel 2:
Mob :
Fax 1: +44 1 81 905 1671
Fax 2:

Name: **WILDEY Chris**
Company: NOKIA MOBILE PHONES
Address: St Georges Court, St Georges Rd.
CAMBERLEY
SURREY GU15 3QZ
UNITED KINGDOM
E-Mail Internet: chris.wildey@nmp.nokia.com

Tel 1: +44 1 276 419 587
Tel 2:
Mob : +44 385 300 479
Fax 1: +44 1 276 677 151
Fax 2:

Name: **WILKINSON Karen**
Company: ERICSSON OMC LTD
Address: The Keytech Centre, Ashwood Way
Basingstoke
HAMPSHIRE RH23 8BG
UNITED KINGDOM
E-Mail Internet: karen.wilkinson@oml.ericsson.se

Tel 1: +44 1256 864752
Tel 2:
Mob : +370 928 745
Fax 1: +44 1256 843 207
Fax 2:

Name: **WILLENEGGER Serge**
Company: QUALCOMM EUROPE SARL
Address: Heiselstrasse 91

8155 NIEDERHASLI
SWITZERLAND
E-Mail Internet: swillene@qualcomm.com

Tel 1: +41 1 851 2528
Tel 2: +33 4 92 38 82 23
Mob :
Fax 1: +41 1 851 2528
Fax 2: +33 4 92 38 82 30

Name:	**WILLIAMS David**	**Tel 1:**	+33 4 92 94 42 61
Company:	ETSI/PT SMG	**Tel 2:**	
Address:	650 Route des Lucioles	**Mob :**	
		Fax 1:	+33 4 93 65 28 17
	06921 SOPHIA ANTIPOLIS CEDEX	**Fax 2:**	
	FRANCE		
E-Mail Internet:	david.williams@etsi.fr		

Name:	**WILLIMOWSKI Ingo**	**Tel 1:**	+49 2842 981 415
Company:	IMST	**Tel 2:**	
Address:	Carl-Friedrich-Gauß-Str. 2	**Mob :**	
		Fax 1:	+49 2842 981 499
	47475 KAMP-LINTFORT	**Fax 2:**	
	GERMANY		
E-Mail Internet:	willimowski@imst.de		

Name:	**WILLRETT Ursel**	**Tel 1:**	+49 7121 86 1265
Company:	WANDEL & GOLTERMANN GmbH	**Tel 2:**	
Address:	PO Box 1262	**Mob :**	
		Fax 1:	+49 7121 86 2148
	72795 ENINGEN	**Fax 2:**	
	GERMANY		
E-Mail Internet:	willrett@wago.de		

Name:	**WILTON Andy**	**Tel 1:**	+44 1 793 566 240
Company:	MOTOROLA LTD	**Tel 2:**	
Address:	16, Euroway Blagrove	**Mob :**	
		Fax 1:	+44 1 793 566225
	SWINDON SN5 8YQ	**Fax 2:**	
	UNITED KINGDOM		

Name:	**WINCH Nicholas**	**Tel 1:**	+44 1 203 562 290
Company:	GPT Ltd.	**Tel 2:**	
Address:	New Century Park	**Mob :**	
	PO Box 53	**Fax 1:**	+44 1 203 563 816
	COVENTRY CV3 1HJ	**Fax 2:**	+44 1 203 562 247
	UNITED KINGDOM		

Name:	**WOINSKY Mel**	**Tel 1:**	+1 973 292 5726
Company:	T1P1 Chairman	**Tel 2:**	
Address:	465 South St Morristown N.J.	**Mob :**	
	PO BOX 1933	**Fax 1:**	+1 973 292 5726
	07962 NEW YORK	**Fax 2:**	
	UNITED STATES		
E-Mail Internet:	mel.woinsky@nt.com		

Name:	**WU Xiao Feng**	**Tel 1:**	+86 10 660 12248

Company:	MINISTRY OF P & T	**Tel 2:**	+86 10 660 58348
Address:	Dept of Science and Technology	**Mob :**	
	13, West Chang-AnAve	**Fax 1:**	+86 10 660 89046
	BEIJING 100804	**Fax 2:**	
	CHINA		

Name:	**WURFFEL Emmanuelle**	**Tel 1:**	+33 4 9294 4266
Company:	ETSI/PT SMG	**Tel 2:**	
Address:	650 Route des Lucioles	**Mob :**	
		Fax 1:	+33 4 93 65 28 17
	06921 SOPHIA ANTIPOLIS CEDEX	**Fax 2:**	
	FRANCE		
E-Mail Internet:	emmanuelle.wurffel@etsi.fr		
X.400:	c=FR; a=ATLAS; p=ETSI; s=Wurffel; g=Emmanuelle		

Name:	**YURASOVA Lyudmila**	**Tel 1:**	+7 095 921 29 32
Company:	MPT OF RUSSIA	**Tel 2:**	
Address:	7, Tverskaya st.	**Mob :**	
		Fax 1:	+7 095 923 5784
	MOSCOW 103375	**Fax 2:**	+7 095 201 6434
	RUSSIA		
E-Mail Internet:	root@depmob.msk.ru		

Name:	**ZELMER Donald E.**	**Tel 1:**	+1 404 841 2013
Company:	BELLSOUTH MOBILITY DCS	**Tel 2:**	
Address:	3353 Peachtree Road N.E.	**Mob :**	
	Suite 300	**Fax 1:**	+1 404 841 4496
	ATLANTA, GA 30326	**Fax 2:**	
	UNITED STATES		
E-Mail Internet:	dzelmer@pcs.bls.com		

Name:	**ZERBINI Ezio**	**Tel 1:**	+39 10 6002 912
Company:	MARCONI SPA	**Tel 2:**	
Address:	Via Negrone 1A	**Mob :**	
		Fax 1:	+3910 650 8698
	GENOVA 16153	**Fax 2:**	
	ITALY		
E-Mail Internet:	ezio.zerbini@marconi-it		

Name:	**ZHANG Huayan**	**Tel 1:**	+ 8610 6463 2288
Company:	ERICSSON (CHINA) COMPANY LTD.	**Tel 2:**	
Address:	No. 9 East Dongfang Road	**Mob :**	+ 86139 1235194
	North Dongsanhuan Road	**Fax 1:**	+ 8610 6461 5405
	BEIJING 100027	**Fax 2:**	
	CHINA		
E-Mail Internet:	etc.etcterry@memo.ericsson.se		

Name:	**ZHANG Xin Sheng**	**Tel 1:**	+ 8610 6601 1332
Company:	MPT OF CHINA	**Tel 2:**	+ 8610 660 12 096
Address:	No. 13 Westchang An Av.	**Mob :**	

		Fax 1:	+ 8610 6608 9046
	Beijing 100804	**Fax 2:**	
	CHINA		
Name:	**ZOLLMAN Peter**	**Tel 1:**	+44 1 635 503 421
Company:	VODAFONE LTD	**Tel 2:**	
Address:	The Courtyard	**Mob :**	+44 385 200 112
	2-4 London Road	**Fax 1:**	+44 1 635 31127
	NEWBURY, BERKSHIRE RG14 1JX	**Fax 2:**	
	UNITED KINGDOM		
E-Mail Internet:	peter.zollman@vf.vodafone.co.uk		
X.400:	G=Peter; S=Zollman; C=GB; A=Gold 400; P=Vodafone		

Annex 2

Status List of CHANGE REQUESTS presented to

SMG#24

Introduction :
This following list contains the final status of all Change Requests, that were presented to SMG#24.
The statistics (see below) is based on that list.

New specifications that were submitted for approval are also listed.

CRs under responsibility of the following STCs have been submitted by the time of printing : *27-Jan-98*

21	CRs presented by SMG 1
25	CRs presented by SMG 2
83	CRs presented by SMG 3
39	CRs presented by SMG 4
97	CRs presented by SMG 7
14	CRs presented by SMG 9
3	CRs presented by SMG 11
282	**CRs presented in total**

Statistics *27-Jan-98*

Phase 2			
	64	CRs	approved
	1	CRs	approved, on hol
	1	CRs	postponed
Phase R96			
	104	CRs	approved
	1	CRs	approved, on hol
	1	CRs	postponed
	1	CRs	revised
Phase R97			
	98	CRs	approved
	3	CRs	approved, on hol
	2	CRs	information
	2	CRs	rejected
Phase UMTS			
	4	CRs	approved
	282	**CRs were presented in total**	

Status_new_Specs

TDoc	SPEC	PHAS	SUBJECT	STATUS	NEW_VE	SOURC
97-981	02.66	R97	Support of Mobile Number portability	approved	5.0.0	SMG1
97-110	30.06	UMTS	UTRA Evaluation Report	approved	3.0.0	SMG2
97-945	08.18	R97	BSS GPRS Protocol (BSSGP)	approved	5.0.0	SMG2
97-944	08.16	R97	Gb interface, Network Service	approved	5.0.0	SMG2
97-943	08.14	R97	Gb interface Layer 1	approved	5.0.0	SMG2
97-929	03.53	R97	Transcoder free operation (TFO)	informatio	1.0.0	SMG3
97-910	09.60	R97	Draft GSM 09.60 v.2.0.0	approved	5.0.0	SMG3
97-103	07.10	R97	GSM 07.10 v. 2.0.0 TE-MS Multiplexing protocol	postponed		SMG4
97-108	04.96	R97	Name Identification Supplementary Services	approved	5.0.0	T1P1.5
97-108	03.96	R97	Name Identification Supplementary Services	approved	5.0.0	T1P1.5
97-108	02.96	R97	Name Identification Supplementary Services	approved	5.0.0	T1P1.5
97-982	02.96	R97	Name Identification Supplementary Services	revised	5.0.0	T1P1.5

Spec	CR	rev	Phase	Cat	SUBJECT	TDoc	Status	NEW_VERS
02.01	**Principles of Telecommunication Services Supported by a GSM Public Land Mobile Network(PLMN).**							
	A007		R96	F	If a user subsc'd to General Bearer Service (e.g. BS 20) requires in a ca	97-970	approved	5.3.0
	A008		R96	D	Editorial corrections	97-970	approved	5.3.0
02.07	**Mobile Station (MS) Features.**							
'strategic'	A015		R97	B	Network Alerting in the MS: Feature applicable to mobile terminating	97-971	approved	5.4.0
'strategic'	A016		R96	B	Alignment of NITZ - Network name, time and timezone information w	97-972	approved	5.4.0
02.11	**Service Accessibility.**							
	A009		R97	B	Requirement for possibility of roaming between PLMNs without GPRS	97-973	rejected	
02.30	**Man-machine Interface (MMI) of the Mobile Station (MS).**							
	A021		R96	D	Spec 02.30 contains many ref's to the Dir Num w/o clearly defining w	97-974	revised	5.7.0
'strategic'	A021	1	R96	D	Spec 02.30 contains many ref's to the Dir Num w/o clearly defining w	97-1149	approved	5.7.0

Spec	CR	rev	Phase	Cat	SUBJECT	TDoc	Status	NEW_VERS
02.41	**Operator Determined Barring**							
	A008		R96	D	Clarification of the ODB Barring Categories for ECT:To allow the inv	97-975	approved	5.2.0
02.42	**Network Identity and Timezone (NITZ); Service Description, Stage 1**							
'strategic'	A002		R96	B	Alignment of NITZ (Network Identity and Time Zone) Correct inconsi	97-972	approved	5.1.0
02.53								
	A001		R97	F	CR to GSM 02.53 Modifications to Annex A (informative): Limitation	97-950	approved	5.1.0
02.60	**General Packet Radio Service Stage 1 Description**							
	A002		R97	D	Clarification of GPRS release 1997 content and minor editorial improv	97-976	approved	5.2.0
	A003		R97	C	Clarification/Improvement of definition of Quality of Services aspects	97-976	approved	5.2.0
02.78	**Customized Applications for Mobile network Enhanced Logic (CAMEL); Service definition (Stage 1)**							
	A014		R97	B	changes are purely editorial and apply to both, CAMEL R96 and R97,	97-977	approved	5.4.0
02.81	**Line Identification Supplementary Services - Stage 1.**							
'strategic'	A006		2	F	Seen in Goteborg - Presentation of add'l calling party number if receive	97-978	approved	4.6.0
'strategic'	A007		R97	A	Same CR applied to R97	97-978	approved	5.1.0
	A008		2	F	With CR A006 to GSM 02.81 the concept of the additional line identiti	97-978	approved	4.6.0
	A009		R97	A	Same CR applied to R97	97-978	approved	5.1.0
02.93	**Completion of Calls to Busy Subcriber (CCBS) Service Description - Stage 1**							
	A017		R97	C	The priority in queue handling has been removed by earlier CRs. The s	97-979	approved	5.5.0
	A018		R97	C	Inclusion of the interaction between CCBS and CAMEL Phase2.	97-979	approved	5.5.0
03.02	**Network Architecture**							
	A005	4	R97	B	Changes needed for GPRS regarding Network Architecture	97-1086	approved	5.3.0
03.10	**GSM Public Land Mobile Network (PLMN) Connection Types.**							
	A007		R96	F	Removal of 2*14.4=19.2 Transparent configuration	97-921	approved	5.4.0
03.18	**Basic Call Handling**							
	A004	1	R97	B	Network's indication of Alerting Categories	97-971	approved	5.3.0
	A007	2	R96	F	Sending ACM & similar messages only once for a call	97-911	approved	5.3.0
	A009	3	R96	D	Concentration of description of core call handling functions in 03.18, C	97-913	approved	5.3.0
	A011	1	R97	B	Modification due to the introduction of SIWF	97-912	approved	5.3.0
	A012		R96	F	Interaction between OR of late call forwarding & CAMEL	97-915	approved	5.3.0
03.40	**Technical Realization of the Short Message Service (SMS) Point-to-point(PP)**							
	A064		R97	B	Security headers	97-918	approved	5.8.0
	A065		R97	B	Transmission of the SME OA	97-918	approved	5.8.0

Spec	CR	rev	Phase	Cat	SUBJECT	TDoc	Status	NEW_VERS
03.41	**Technical Realization of Short Message Service Cell Broadcast (SMSCB).**							
	A045		R96	F	Failure reasons	97-919	approved	5.8.0
	A046		R96	F	Recovery indication	97-919	approved	5.8.0
	A047		R96	D	SET-DRX	97-919	approved	5.8.0
	A048		R96	C	Clarification of the Update field in the Write Replace PDU	97-919	approved	5.8.0
	A049		R96	D	Unknown-Error/Unspecified-Error	97-919	approved	5.8.0
	A050		R96	D	Unrecognised Information Elements	97-919	approved	5.8.0
	A051		R96	D	Use of high priority messages and reserved slots	97-919	approved	5.8.0
	A052		R96	C	Schedule period length	97-919	approved	5.8.0
03.49	**Example Protocol Stacs for Interconnecting Cell Broadcast Centre (CBC) and Base Station Controler (BSC)**							
	A026		R96	F	ASN.1 corrections and 03.41 alignment	97-919	approved	5.7.0
	A027		R97	F	Cell list structures	97-919	approved	5.7.0
	A028		R96	C	UNBIND and BIND-FAILURE	97-919	approved	5.7.0
	A029		R96	C	Version control for the CBC-BSC interface	97-919	approved	5.7.0
	A030		R96	D	Definition of parameters	97-919	approved	5.7.0
	A031		R96	C	Schedule period length	97-919	approved	5.7.0
03.50	**Transmission Planning Aspects of the Speech Service in the GSM Public Land Mobile Network (PLMN) System.**							
	A009		2	B	CR to GSM 03.50 Allow use of artificial ear Type 3.2 for ME tests	97-949	approved	4.3.0
	A011		R96	D	CR to 03.50 Correction of wrong reference to ITU-T Recommendation	97-949	approved	5.0.3
03.54	**High Speed Circuit Switched Data (HSCSD) - Stage 2**							
	A004		R97	D	Clarification on the MAP Dialouge	97-920	approved	5.2.0
	A005		R97	F	Correlation of ISUP messages	97-920	approved	5.2.0
	A006		R97	F	Dedicated services (BS4x or BS5x) should not be restricted to the non	97-920	approved	5.2.0
	A007		R97	F	RR parameters over the K-interface	97-920	approved	5.2.0
03.60	**General Packet Radio Service (GPRS) Service description; Stage 2**							
	A011	1	R97	C	Idle mode and connected mode	97-937	approved	5.2.0
	A012	1	R97	C	SMS delivery path	97-937	approved	5.2.0
	A013	3	R97	D	Editorial changes on 03.60	97-937	approved	5.2.0
	A014	5	R97	C	Editorial changes and clarifications on GSM 03.60	97-937	approved	5.2.0
	A015	4	R97	C	MS purge for GPRS	97-937	approved	5.2.0
	A016	3	R97	C	Maximum N-PDU size	97-937	approved	5.2.0
	A017	4	R97	C	To align the anonymous PDP context activation with the non-anonymo	97-937	approved	5.2.0
	A018	5	R97	C	Routing area update procedure	97-937	approved	5.2.0
	A019	3	R97	C	Clarification of the routing area update procedure and cell identifier	97-937	approved	5.2.0
	A021	2	R97	B	TLLI reallocation	97-937	approved	5.2.0
	A022	3	R97	B	Additional PDP configuration options	97-937	approved	5.2.0

Spec	CR	rev	Phase	Cat	SUBJECT	TDoc	Status	NEW_VERS
	A023	3	R97	F	GSN number and address	97-937	approved	5.2.0
	A024	4	R97	B	Access point name	97-937	approved	5.2.0
	A025	2	R97	C	More robust network-requested PDP context activation procedure	97-937	approved	5.2.0
	A026	1	R97	C	Addition of a reset indication message from the SGSN to the VLR	97-937	approved	5.2.0
	A028	5	R97	C	Handling of CS paging requests by the SGSN after a failure	97-937	approved	5.2.0
	A030	5	R97	C	QoS definitions	97-937	approved	5.2.0
	A031	2	R97	C	Alert and monitoring procedures at the MSC/VLR for class A and B	97-937	approved	5.2.0
	A032	1	R97	C	Further description of the network-requested context activation proced	97-937	approved	5.2.0
	A033		R97	C	Detach indication from the SGSN to the VLR	97-937	approved	5.2.0
	A035	2	R97	C	No more combined (GPRS+non-GPRS) "Ready for SM" notification t	97-937	approved	5.2.0
03.64	**Overall description of the GPRS radio interface; Stage 2**							
'strategic'	A031	1	R97	C	Clarification on the use of hysteresis for cell re-selection	97-985	approved	5.2.0
03.68	**Voice Group Call Service (VGCS) - Stage 2**							
	A011		R97	B	Update of 03.68 to cover inter-MSC Voice group calls	97-989	approved	5.4.0
03.69	**Voice Broadcast service (VBS) - Stage 2**							
	A010		R97	B	Update of 03.69 to cover inter-MSC Voice Broadcast Calls	97-989	approved	5.4.0
03.78	**CAMEL Phase 1 (stage 2)**							
	A008	8	R97	B	Support of CAMEL phase 2 (stage2)	97-909	information	6.0.0
	A009	4	R96	D	Concentration of description of core call handling functions in 03.18, C	97-913	approved	5.3.0
	A011		R96	F	Removal of CallingPartyNumber from Connect	97-915	approved	5.3.0
	A013		R96	F	Removal of the CalledPartyNumber for MO calls from IDP	97-915	approved	5.3.0
	A014	1	R96	F	Use of the CallReference Number & GMSC address in SRI	97-915	approved	5.3.0
03.79	**Support of Optimal Routing phase 1 (stage 2)**							
	A004	3	R96	D	Concentration of description of core call handling functions in 03.18, C	97-913	approved	5.2.0
03.81	**Line Identification Supplementary Services - Stage 2.**							
	A004	3	2	F	Handling of number parameters related to the line identification service	97-1045	approved	4.7.0
	A005	1	R96	A	Handling of number parameters related to the line identification service	97-1045	approved	5.1.0
04.03	**Mobile Station - Base Station System (MS - BSS) Interface Channel Structures and Access Capabilities.**							
'strategic'	A005	2	R97	B	Introduction of GPRS	97-946	approved	5.3.0
04.04	**Layer 1 - General Requirements.**							
'strategic'	A001	2	R97	B	Introduction of GPRS	97-946	approved	5.1.0
04.07	**Mobile Radio Interface Signalling Layer 3 - General Aspects**							
	A008	5	R97	B	Inclusion of GPRS	97-988	approved	5.3.0

Spec	CR	rev	Phase	Cat	SUBJECT	TDoc	Status	NEW_VERS
'strategic'	A010		R96	F	Alignment of the compact notation with the way it is used	97-987	approved	5.3.0
04.08	**Mobile Radio Interface - Layer 3 Specification**							
'strategic'	A181	5	R97	C	System information type 10	97-941	approved	5.8.0
	A206	5	R97	B	Network Alerting in the MS: Consequential CR - A new Information El	97-971	approved	5.8.0
'strategic'	A245		R96	F	Inconsistency of user rate in IE bearer capability	97-986	approved	5.8.0
'strategic'	A246		R96	F	Frequency redefinition procedure for multislot configuration	97-941	approved	5.8.0
'strategic'	A247	2	R96	F	Clarification to SACCH procedures for multislot configuration	97-941	approved	5.8.0
'strategic'	A248	2	R96	A	Clarification on audio connection	97-986	approved	5.8.0
'strategic'	A249	2	2	F	Clarification on audio connection	97-991	approved	4.21.0
'strategic'	A251	1	R97	B	Mobile assisted frequency allocation	97-942	approved	5.8.0
'strategic'	A253		R97	D	Multiple allocation of IEs within on protocol	97-986	approved	5.8.0
'strategic'	A255		R96	F	Alignment of the compact notation with the way it is used	97-987	approved	5.8.0
04.21	**Rate Adaption on the Mobile Station - Base Station System (MS-BSS) Interface.**							
	A009		R96	F	Removal of 2*14.4=19.2 Transparent configuration	97-921	approved	5.4.0
	A010		R96	F	Update of the protocol stack models in Annex A	97-921	approved	5.4.0
04.64								
	A001	1	R97	C	Various corrections and alignments with other specifications	97-938	approved	5.1.0
	A002	2	R97	C	NACK/SACK procedure	97-938	approved	5.1.0
	A003		R97	C	T200 default values	97-938	approved	5.1.0
	A004		R97	B	Introduction of new primitive	97-938	approved	5.1.0
	A005		R97	C	Frame reject response	97-938	approved	5.1.0
	A006	1	R97	C	Minimum value for N201	97-938	approved	5.1.0
	A007	1	R97	C	Cipher parameter input	97-938	approved	5.1.0
	A008	1	R97	B	Introduction of data mode parameter in LLC	97-938	approved	5.1.0
	A009		R97	B	Separate N201 parameter for I and U-UI frames	97-938	approved	5.1.0
	A010	1	R97	C	Cell update procedure	97-938	approved	5.1.0
	A011	1	R97	F	ABM SAPIs	97-938	approved	5.1.0
	A012	1	R97	F	Update of service primitive names	97-938	approved	5.1.0
	A013	1	R97	C	Maximum number of octets in an information field, N201	97-938	approved	5.1.0
	A014		R97	C	Removal of the length indicator field	97-938	approved	5.1.0
04.65								
	A001	1	R97	B	Introduction of new primitive	97-990	approved	5.1.0
	A003	1	R97	B	Introduction of header compression for SN-UNITDATA	97-990	approved	5.1.0
	A004	1	R97	B	Introduction of data compression for SN-UNITDATA	97-990	approved	5.1.0
	A005	1	R97	C	SNDCP XID negotiation	97-990	approved	5.1.0
	A007		R97	B	Update of service primitives	97-990	approved	5.1.0

Spec	CR	rev	Phase	Cat	SUBJECT	TDoc	Status	NEW_VERS
	A008		R97	C	Separation of N201-I and N201-U	97-990	approved	5.1.0
	A010	1	R97	D	1st editorial changes	97-990	approved	5.1.0
	A011	2	R97	F	2nd editorial changes	97-990	approved	5.1.0
	A012	1	R97	F	Various corrections	97-990	approved	5.1.0
04.80	**Mobile Radio Interface Layer 3 - Supplementary Services Specification Formats and Coding**							
	A007	2	R97	B	Calling Name Presentation	97-1081	approved	5.1.0
	A007	2	R97	B	Changes due to Calling Name Presentation	97-1048	approved	5.1.0
04.88	**Call Barring (CB) Supplementary Services - Stage 3.**							
	A004		R97	C	Call Barring after reconnection	97-1047	approved	5.1.0
05.01	**Physical Layer on the Radio Path (General Description)**							
'strategic'	A010	1	R97	B	Introduction of GPRS	97-1002	approved	6.0.0
05.02	**Multiplexing and Multiple Access on the Radio Path**							
'strategic'	A020	1	R97	F	Corrections and clarifications to GPRS	97-1003	approved	6.0.0
'strategic'	A021		R97	B	Multislot classes for GPRS	97-1003	approved	6.0.0
'strategic'	A022	1	R97	B	System information for GPRS on BCCH	97-1003	approved	6.0.0
'strategic'	A023	2	R97	C	Alignment of 51- and 52-multiframe PCCCH	97-1003	approved	6.0.0
05.05	**Radio Transmission and Reception**							
'strategic'	A058	1	2	C	Improvement to DCS MS sensitivity	97-1004	approved	4.21.0
'strategic'	A059	1	R96	A	Improvement to DCS MS sensitivity	97-1004	approved	5.7.0
'strategic'	A063	2	R97	B	Reference performance for GPRS	97-1004	approved	6.0.0
05.08	**Radio Subsystem Link Control**							
'strategic'	A039		2	F	Allowed time to decode BCCH data	97-1005	approved	4.21.0
'strategic'	A040		R96	A	Allowed time to decode BCCH data	97-1005	approved	5.6.0
'strategic'	A041		R96	C	Dual band MS cell re-selection enhancement	97-1005	approved	5.6.0
'strategic'	A042	2	R97	B	Mobile Assisted Frequency Allocation	97-1144	approved	5.6.0
'strategic'	A042	3	R97	B	Mobile Assisted Frequency Allocation	97-1005	rejected	5.6.0
'strategic'	A043		R97	B	Channel Quality Report in GPRS	97-1005	approved	6.0.0
05.50	**Background for RF Requirements.**							
'strategic'	A005	1	R97	B	Introduction of simulation results for GPRS receiver performance	97-1006	approved	6.0.0
07.01	**General on Terminal Adaptation Functions (TAF) for Mobile Stations (MS)**							
	A027		R96	D	Editorial Modification for HSCSD	97-921	approved	5.7.0
	A028		R96	F	Valid combinations of HSCSD parameters	97-921	approved	5.7.0
	A029		R96	C	LLC Handling in GBS	97-921	approved	5.7.0

Spec	CR	rev	Phase	Cat	SUBJECT	TDoc	Status	NEW_VERS
07.02	**Terminal Adaptation Functions (TAF) for Services Using Asynchronous Bearer Capabilities**							
	A011		R96	F	Clarification to L2R	97-921	approved	5.5.0
07.03	**Terminal Adaptation Functions (TAF) for Services Using Synchronous Bearer Capabilities**							
	A009		R96	F	Clarification to L2R	97-921	approved	5.4.0
07.05	**Use of Data Terminal Equipment - Data Circuit Terminating Equipment (DTE-DCE) Interface for Short Message Services (SMS) and Cell Bro**							
	A037		R96	F	Unnecessary conversion in Annex A	97-922	approved	5.5.0
07.07	**Digital cellular telecommunications System (Phase 2) AT Command set for GSM Mobile Equipment (ME)**							
	A044		R96	D	Update of alternating call figures	97-922	approved	5.5.0
	A045		R96	F	V.120/RDI correction	97-922	approved	5.5.0
	A046		2	F	AT+CPIN or AT+CKPD must be mandatory in some cases (phase 2)	97-922	approved	4.2.0
	A047		R96	A	AT+CPIN or AT+CKPD must be mandatory in some cases (phase 2+)	97-922	approved	5.5.0
'strategic'	A048		R97	B	MUX 07.10 AT commands	97-1031	approved	5.5.0
07.08	**GSM Application Programming Interface**							
'strategic'	A002		R96	F	Correction of references	97-1029	approved	5.2.0
07.60	**General Packet Radio Service (GPRS); Mobile Station (MS) supporting GPRS**							
	A002		R97	F	IP configuration parameters and PPP clarifications	97-1030	approved	5.1.0
08.08	**Mobile Switching Centre - Base Station system (MSC-BSS) Interface Layer 3 Specification**							
'strategic'	A090		R96	F	Correction of Circuit Pool Description	97-940	approved	5.8.0
'strategic'	A092	1	R96	F	Clean-up for work item Improved Transcoder Handling	97-940	approved	5.8.0
08.20	**Rate Adaptation on the Base Station System - Mobile Service Switching Centre (BSS-MSC) Interface.**							
	A004		R96	F	Removal of 2*14.4=19.2 Transparent configuration	97-921	approved	5.3.0
08.58	**Base Station Controler - Base Transceiver Station (BCS-BTS) Interface Layer 3 Specification**							
'strategic'	A022	1	R97	B	Mobile assisted frequency allocation	97-942	approved	5.6.0
09.02	**Mobile Application Part (MAP) Specification**							
	A084	3	R97	B	Network's indication of alerting	97-971	approved, on hold	6.0.0
	A094	2	R97	B	Modifications due to ASCI phase 2	97-989	approved, on hold	6.0.0
	A103	6	R97	B	Introduction of SIWFS	97-912	approved, on hold	6.0.0
	A106	4	R96	F	Corrections	97-917	approved	5.8.0
	A107	2	R96	F	Addition of a context specific TAG for SendRoutingInfoRes	97-917	approved	5.8.0
	A108		R96	F	object identifier values for proprietary extensions	97-917	approved	5.8.0
	A112		R96	F	Correction due to GAD	97-915	approved	5.8.0
09.07	**General Requirements on Interworking between the Public Land Mobile Network (PLMN) and the Intergrated Services Digital Network (ISD**							
	A036		R96	F	Correction of V.120 and RDI interworking	97-922	approved	5.6.0

Spec	CR	rev	Phase	Cat	SUBJECT	TDoc	Status	NEW_VERS
	A037		R96	C	LLC Modification	97-921	approved	5.6.0
09.78	**CAMEL Application Part phase 1 (stage 3)**							
	A019		R96	F	Removal of CallingPartyNumber from Connect	97-915	approved	5.3.0
	A020		R96	F	Removal of the transparent mode monitoring	97-915	approved	5.3.0
	A021		R96	F	Update the SCCP class requirements in 09.78	97-915	approved	5.3.0
	A022		R96	F	Remove mapping of CalledPartyBCD number and order sequence in A	97-915	approved	5.3.0
11.10-1	**Conformance Specification**							
	A328		2	F	CR to 11-10-1,Editorial correction to Section 26.10.2.5.3	97-924	approved	4.21.0
	A329		R96	F	CR to 11-10-1,Editorial correction to Section 26.10.2.5.3	97-925	approved	5.4.0
	A330		2	D	CR to 11.10-1 Editorial modifications to section 3.2.2, table 3.1 Applic	97-924	approved	4.21.0
	A331		R96	D	CR to 11.10-1 Editorial modifications to section 3.2.2, table 3.1 Applic	97-925	approved	5.4.0
	A334		2	D	CR to 11.10-1 Editorial modifications to section 26.12.2.2	97-924	approved	4.21.0
	A335		R96	D	CR to 11.10-1 Editorial modifications to section 26.12.2.2	97-925	approved	5.4.0
	A336		2	D	CR to 11.10-1 Editorial modifications to section 26.12.2.1.3	97-924	approved	4.21.0
	A337		R96	D	CR to 11.10-1 Editorial modifications to section 26.12.2.1.3	97-925	approved	5.4.0
	A338		2	D	CR to 11.10-1 Editorial modifications to section 31.6.2.4	97-924	approved	4.21.0
	A339		R96	D	CR to 11.10-1 Editorial modifications to section 31.6.2.4	97-925	approved	5.4.0
	A340		R96	D	CR to 11.10-1 Phase 2+ Addition of HSCSD test cases in Table 3.1: A	97-925	approved	5.4.0
	A341		2	F	CR to 11.10-1 Phase 2 Addition of a test purpose in 26.11.3 to test L2	97-924	approved	4.21.0
	A343		2	F	CR to 11.10-1 Correction of 26.7.4.3.4	97-924	approved	4.21.0
	A344		R96	F	CR to 11.10-1 Correction of 26.7.4.3.4	97-925	approved	5.4.0
	A345		R96	F	CR to 11-10-1 Phase 2+ Addition of a test purpose in 26.11.3 to test L	97-925	approved	5.4.0
	A346		2	D	CR to 11.10-1 Editorial modifications to Annex 3.2.3.1/3/4 removal of	97-924	approved	4.21.0
	A347		R96	D	CR to 11.10-1 Editorial modifications to Annex 3.2.3.1/3/4 removal of	97-925	approved	5.4.0
	A348		R96	F	CR to 11.10-1 Phase 2+HSCSD test case 26.13.1.1.2 Multislot Signalli	97-925	approved	5.4.0
	A349		R96	F	CR to 11.10-1 Phase 2+ HSCSD test case 26.13.1.2.1 Multislot signalli	97-925	approved	5.4.0
	A350		R96	F	CR to 11.10-1 Phase 2+ HSCSD test case 26.13.1.3.4 Multislot signalli	97-925	approved	5.4.0
	A351		2	F	CR to 11.10-1 Section 26.10.2.3 Incorrect Frequencies Specified	97-924	approved	4.21.0
	A352		R96	F	CR to 11.10-1 Phase 2+Section 26.10.2.3 Incorrect Frequencies Speci	97-925	approved	5.4.0
	A353		R96	F	CR to 11.10-1 Phase 2+-HSCSD test case 26.13.1.1.1 Multislot signall	97-925	approved	5.4.0
	A354		2	D	CR to 11.10-1 Editorial modifications to section 22.5	97-926	approved	4.21.0
	A355		R96	D	CR to 11.10-1 Editorial modifications to section 22.5	97-927	approved	5.4.0
	A356		2	B	CR to 11.10-1 Allow use of artificial ear type 3.2 for speech teleservice	97-926	approved	4.21.0
	A357		R96	B	CR to 11.10-1 Allow use of artificial ear type 3.2 for speech teleservice	97-927	approved	5.4.0
	A358		2	D	CR to 11.10-1 Phase 2- Section 14 - incorrect references to Phase 1	97-926	approved	4.21.0
	A359		R96	D	CR to 11.10-1 Phase 2+-Section 14 - incorrect references to Phase 1	97-927	approved	5.4.0
	A360		2	E	CR to 11.10-1 Phase 2- section 20.8 Cell reselection when C1 (servin	97-926	approved	4.21.0

Spec	CR	rev	Phase	Cat	SUBJECT	TDoc	Status	NEW_VERS
	A361		R96	F	CR to 11.10-1 Phase 2+- Section 20.8 Cell reselection when C1 (servin	97-927	approved	5.4.0
	A362		2	F	CR to 11.10-1 Phase 2- section 20.20.2 Multiband cell selection and r	97-926	approved	4.21.0
	A363		R96	F	CR to 11.10-1 Phase 2+- section 20.20.2 Multiband cell selection and	97-927	approved	5.4.0
	A364		2	F	CR to 11.10-1 Phase 2- section 30.6.1 Echo loss	97-926	approved	4.21.0
	A365		R96	F	CR to 11.10-1 Phase 2+- Section 30.6.1 Echo loss	97-927	approved	5.4.0
	A366		2	D	CR to 11.10-1 Phase 2-Editorial modifications to section 12.1.1.4.2	97-926	approved	4.21.0
	A367		R96	D	CR to 11.10-1 Phase 2+-Editorial modifications to section 12.1.1.4.2	97-927	approved	5.4.0
	A368		2	F	CR to 11.10-1 Phase2 Editorial modifications to section 20.1.4.1 & 20.	97-926	approved	4.21.0
	A369		R96	F	CR to 11.10-1 Phase2+ Editorial modifications to section 20.1.4.1 & 2	97-927	approved	5.4.0
	A370		2	B	CR to 11-10-1 Section 30 and section 2 Allow use of artificial ear type	97-926	approved	4.21.0
	A371		R96	B	CR to 11-10-1 Section 30 and section 2 Allow use of artificial ear type	97-927	approved	5.4.0
	A372		2	D	CR to 11-10.1 Addition of test case references	97-926	approved	4.21.0
	A373		R96	D	CR to 11-10.1 Addition of test case references	97-927	approved	5.4.0
	A374		2	D	CR to 11-10.1 Editorial modification of section 22.2	97-926	approved	4.21.0
	A375		R96	D	CR to 11-10.1 Editorial modification of section 22.2	97-927	approved	5.4.0
	A376		R96	B	CR to 11.10-1 Phase 2+Transmitter: Output RF spectrum in multislot c	97-927	approved	5.4.0
	A377		R96	B	CR to 11.10-1 Phase 2+Reference sensitivity - full rate data channels in	97-927	approved	5.4.0
	A378		R96	B	CR to 11.10-1 Phase 2+Transmit power control timing and confirmatio	97-927	approved	5.4.0
	A379		R96	B	CR to 11.10-1 Phase 2+Transmitter: Frequency error and phase error i	97-927	approved	5.4.0
	A380		2	D	CR to 11.10-1 Phase 2+Transmitter: Frequency error and phase error i	97-926	approved	4.21.0
	A381		R96	D	CR to 11.10-1 Phase 2+Transmitter: Frequency error and phase error i	97-927	approved	5.4.0
	A382		2	F	CR to 11.10-1 Section 29.3.1.2.2 Total loss of UA frame	97-1122	approved	4.21.0
	A383		R96	F	CR to 11.10-1 Section 29.3.1.2.2 Total loss of UA frame	97-1123	approved	5.4.0
	A384		2	F	CR to 11.10-1 Section 29.3.2.2.2 Transmission Window	97-1122	approved	4.21.0
	A385		R96	F	CR to 11.10-1 Section 29.3.2.2.2 Transmission Window	97-1123	approved	5.4.0
	A386		2	F	CR to 11.10-1 Section 29.3.2.6.1 SS in checkpoint recovery mode	97-1122	approved	4.21.0
	A387		R96	F	CR to 11.10-1 Section 29.3.2.6.1 SS in checkpoint recovery mode	97-1123	approved	5.4.0
	A388		2	F	CR to 11.10-1 Section 29.3.2.6.2 End of a window	97-1122	approved	4.21.0
	A388		R96	F	CR to 11.10-1 Section 29.3.2.6.2 End of a window	97-1123	approved	5.4.0
	A390		2	F	CR to 11.10-1 Section 29.3.2.6.3 End of a sequence	97-1122	approved	4.21.0
	A391		R96	F	CR to 11.10-1 Section 29.3.2.6.3 End of a sequence	97-1123	approved	5.4.0
	A392		2	F	CR to 11.10-1 Section 29.3.2.6.5 No response to checkpointing	97-1122	approved	4.21.0
	A393		R96	F	CR to 11.10-1 Section 29.3.2.6.5 No response to checkpointing	97-1123	approved	5.4.0
	A394		2	F	CR to 11.10-1 Section 29.3.2.6.7 Total loss of response to checkpointi	97-1122	approved	4.21.0
	A395		R96	F	CR to 11.10-1 Section 29.3.2.6.7 Total loss of response to checkpointi	97-1123	approved	5.4.0
11.10-3	**Layer3 (L3) Abstract Test Suite (ATS)**							
	312		2	F	Correction of 2nd TMSI-Reallocation in TC 26 7 1	97-891	approved	4.21.0

Spec	CR	rev	Phase	Cat	SUBJECT	TDoc	Status	NEW_VERS
	313		2	F	Cell Selection Implementation Errors	97-892	approved	4.21.0
	314		2	F	Corrections to handover test case 26 6 5 7	97-891	approved	4.21.0
	315		2	F	Corrections to handover test case 26 6 5 6	97-891	approved	4.21.0
	316		2	F	Corrections to handover test case 26 6 5 5 1	97-891	approved	4.21.0
	317		2	F	Corrections to TC 26 10 3 1	97-891	approved	4.21.0
	318		2	F	Corrections to handover test case 26 6 5 9	97-891	approved	4.21.0
	319		2	F	Corrections to handover test case 26 6 5 8	97-891	approved	4.21.0
	320		2	F	TTCN modifications to C 26 8 1 4 5 1, TC 26 8 1 4 4 1, Setup	97-891	approved	4.21.0
	321		2	F	Corrections to handover test case 26 6 5 5 2	97-891	approved	4.21.0
	322		2	F	Problem with test case TC 26 6 5 4 2	97-891	approved	4.21.0
	323		2	F	Naming collision with FullRateCh B 1 & Est MO Call init in EFR	97-891	approved	4.21.0
	324		2	F	Simplification for checking of Mobile Time Difference IE in TCs 26 6	97-891	approved	4.21.0
	325		2	F	Implementation problems with TC 26 6 5 3 2	97-891	approved	4.21.0
	326		2	F	Test case 26 8 2 1 problems	97-891	approved	4.21.0
	327		2	F	Test case 26 8 1 4 3 2 problems	97-891	approved	4.21.0
	328		2	F	Problems with TC 26 6 4 2 2	97-891	approved	4.21.0
	329		2	F	Problem with use of lists as parameters	97-891	approved	4.21.0
	331		2	F	Problems with TC 26 10 2 5	97-891	approved	4.21.0
	332		2	F	TTCN modifications to TC 26 9 6 1 1	97-891	approved	4.21.0
	333		2	F	Problems with TC 26 10 2 2	97-891	approved	4.21.0
	334		2	F	Use correct channels in TC 26 5 7 1 4	97-891	approved	4.21.0
	335		2	F	New Test Step (InitCM) Needed In-Order Use Custom Call Initiation	97-891	approved	4.21.0
	336		2	F	Problems with TC 26 10 2 3	97-891	approved	4.21.0
	337		2	F	Problem with use of lists as parameters	97-891	approved	4.21.0
	338		2	F	CS ATS implementation errors	97-892	approved	4.21.0
	340		2	F	CS ATS implementation errors (Modification of TC 20 6 suitable for	97-892	approved	4.21.0
	341		2	F	Adjusting RF power levels in TC 26 7 4 3 1	97-891	approved	4.21.0
11.11	**Specification of the Subscriber Identity Module - Mobile Equipment (SIM-ME) Interface.**							
	a052	2	R97	b	Introduction of UCS2	97-886	approved	5.8.0
	a057		R97	c	MO SMS control by SIM	97-886	approved	5.8.0
	a058		R97	b	addition of GPRS data field	97-889	information	5.8.0
11.14	**Specification of Subscriber Identity Module - Mobile Equipment (SIM - ME) Interface for SIM Application Toolkit**							
	A044		R96	F	high priority of DISPLAY TEXT	97-1124	approved	5.6.0
	a045		R97	B	new type of DISPLAY TEXT and SET UP CALL	97-886	approved	5.6.0
	a047	1	R97	D	Extension of informative Annex on help information feature.	97-886	approved	5.6.0
	a048		R97	C	Enhancement to PROVIDE LOCAL INFORMATION	97-886	approved	5.6.0
	a049		R96	F	GET INPUT - Hidden text	97-886	approved	5.6.0

Spec	CR	rev	Phase	Cat	SUBJECT	TDoc	Status	NEW_VERS
	a050		R97	B	Default choice possibility for Get Input	97-886	approved	5.6.0
	a051	2	R97	B	Improvement of the dialogue with the user	97-886	approved	5.6.0
	a052		R97	C	cell identity available in call control by SIM	97-886	approved	5.6.0
	a053		R96	F	Profile download	97-886	approved	5.6.0
	a054		R97	B	send USSD	97-886	approved	5.6.0
	a055		R97	B	MO SMS control by SIM	97-886	approved	5.6.0
22.01	**Universal Mobile Telecommunications System (UMTS): Service aspects; Service principles**							
	A004		UMTS	D	Comparing UMTS 22.01 V3.1.1 distributed at SMG#23 with UMTS	97-965	approved	3.2.0
	A005		UMTS	D	UMTS 22.01 Multiple Subscriptions: Restructuring of sections 8,9 an	97-966	approved	3.2.1
	A006		UMTS	D	UMTS 22.01 Numbering Principles: Improving the accuracy of text on	97-967	approved	3.2.1
30.20								
	A001		UMTS	B	Characteristics of Satellite Systems	97-1055	approved	3.1.0
TBR 19								
	A009		2	F	CR to TBR 19 Reduction of test cases for EFR TC 26 12 2 1 AND	97-928	approved, on hold	
	A010		2	B	CR to TBR 19 Inclusion of HSCSD Multislot test cases	97-928	postponed	
TBR 31								
	A003		R96	F	CR to TBR 31 Reduction of test cases for EFR TC 26 12 2 1 AND	97-928	approved, on hold	
	A004		R96	B	CR to TBR 31 Inclusion of HSCSD Multislot test cases	97-928	postponed	

LIST OF SMG DOCUMENTS

SORTED BY DOCUMENT NUMBER DRAFT No.4

SMG#24 MEETING No 5/97 - MADRID 15-19 DECEMBER, 1997

NUMBER	TITLE	AGENDA ITEM	SOURCE	*REPLACED BY TDOC*
880/97	Agenda and Schedule of SMG#24	2	TC SMG Chairman	*885/97*
881/97	Involvement of Asia Pacific GSM MoU Members in the UMTS terrestrial Radio Access (UTRA) Decision	4.1	TC SMG Chairman	
882/97	GSM-UMTS Core Network definition pivoting GSM Core Network evolution	4.1	TC SMG Chairman	
883/97	Procedure for voting on UTRA	4.1	TC SMG Chairman & ETSI's Legal Adviser	*995/97*
884/97	SMG-CG 23bis 30/10/97 in Bonn Meeting Report	4.3	PT SMG Co-Ordinator	
885/97	Agenda and Schedule of SMG#24 (revised TDoc 880/97)	2	TC SMG Chairman	*1020/97*
886/97	Non strategic CRs to GSM 11.11 and GSM 11.14 (see missing CR in TDoc 1124/97)	5.5	SMG9	
887/97	New Work item - Auxiliary device access using SIM application toolkit	5.5	SMG9	
888/97	GSM 03.48 (SIM toolkit secure messaging), v2.0.1 - for approval	5.5	SMG9	
889/97	Status and summary of SMG9 related GPRS issues and CR to GSM 11.11	5.5	SMG9	
890/97	UMTS 21.06 (Network and service management requirements for UMTS	5.5	SMG6	
891/97	Non-strategic CRs 312 to 329 and 331 to 337 and 341 to GSM 11.10-3 Phase 2	5.5	SMG7	
892/97	Non strategic CRs 313, 338 and 340 to GSM 11.10-3 Phase 2	5.5	SMG7	
893/97	Summary of the UTRA definition procedure in SMG2	4.1	SMG2	
894/97	Summary of the concept description of the Beta concept	4.1	SMG2	
895/97	Summary of the concept evaluation of the Beta concept	4.1	SMG2	
896/97	Concept Group Beta OFDMA : System Description Performance Evaluation	5.3	SMG2	
897/97	Concept Group Delta WB-TDMA/CDMA: System Description Summary	4.1	SMG2	
898/97	Concept Group Delta WB-TDMA/CDMA: Evaluation Summary	4.1	SMG2	
899/97	Concept Group Delta WB-TDMA/CDMA: System Description Performance Evaluation	5.3	SMG2	
900/97	Concept Group Gamma - WB-TDMA: System Description Summary	4.1	SMG2	
901/97	Concept Group Gamma - WB-TDMA: Evaluation Summary	4.1	SMG2	
902/97	Concept Group Gamma: Wideband TDMA: Evaluation document	5.3	SMG2	
903/97	Concept Group Alpha: Wideband Direct-Sequence CDMA: System Description Summary	4.1	SMG2	

NUMBER	TITLE	AGENDA ITEM	SOURCE	*REPLACED BY TDOC*
904/97	Concept Group Alpha: Wideband Direct-Sequence CDMA: Evaluation Summary	4.1	SMG2	
905/97	Concept Group Alpha: Wideband Direct-Sequence CDMA (WCDMA) Evaluation Document	5.3	SMG2	
906/97	Current Situation and Principle Attitude of Standardization Activities on Radio Transmission Technology for IMT-2000 in ARIB	4.1	ARIB	
907/97	Co-ordination of ITU Work in ETSI, ETSI/B10(97)09	4.6	TC SMG Chairman	
908/97	Information copy of Ericsson IPR Statement	4	Ericsson	
909/97	Stage 2 of CAMEL Phase 2 (CR 03.78 A008r8)	5.4	SMG3	
910/97	GSM 09.60 v.2.0.0 GPRS Tunnelling Protocol (GTP)	5.4	SMG3	
911/97	CR A007r2 to GSM 03.18 v.5.1.0	5.4	SMG3	
912/97	CR A011r1 to GSM 03.18 and A103r5 to GSM 09.02	5.4	SMG3	
913/97	Changes to GSM 03.18, GSM 03.78 & GSM 03.79 to ease the documentation for further services	5.4	SMG3	
914/97	DEN/SPS-03052-1 - INAP; Part 1: Protocol specification for CAMEL Phase 1	5.4	SMG3	
915/97	CRs to GSM 03.18, 03.78 and 09.02: Corrections for CAMEL Phase 1 (R96)	5.4	SMG3	
916/97	GSM 10.78 v.1.5.0 Project scheduling and open issues: CAMEL	5.4	SMG3	
917/97	CRs A106r4 A107r2 and A108 to GSM 09.02	5.4	SMG3	
918/97	Non strategic CRs A064 and A065 to GSM 03.40 v.5.7.0	5.5	SMG4	
919/97	CRs A045 to A052 to GSM 03.41 v.5.7.0 and A026 to A031 to GSM 03.49 v.5.6.0	5.5	SMG4	
920/97	Non strategic CRs A004 to A007 to GSM 03.54 v.5.1.0	5.5	SMG4	
921/97	Non strategic CRs for HSCSD and 14.4 kbit/s	5.5	SMG4	
922/97	Non strategic CRs to GSM 07.05, 07.07 and on work item V.120/RDI interworking	5.5	SMG4	
923/97	SMG7 STATUS REPORT	5.5	SMG7 Chairman	
924/97	Non strategic CRs A328, A330, A332, A334, A336, A338, A342, A343, A346, A348, A351 to GSM 11.10-1 Phase 2 (SIG)	5.5	SMG7	
925/97	Non strategic CRs A329, A331, A333, A335, A337, A339, A340, A344, A345, A347, A349, A350, A352, A353 to GSM 11.10-1 Phase 2+ (SIG)	5.5	SMG7	
926/97	Non strategic CRs A354, A356, A358, A360, A362, A364, A366, A368, A370, A372, A374, A380 to GSM 11.10-1 Phase 2 (RF)	5.5	SMG7	
927/97	Non strategic CRs A355, A357, A359, A361, A363, A365, A367, A369, A371, A373, A375, A376, A377, A378, A379, A381 to GSM 11.10-1 Phase 2+ (RF)	5.5	SMG7	
928/97	Non strategic CRs A009, A010 to TBR 19 and Strategic CRs A003, A004 to TBR 31	5.5	SMG7	
929/97	GSM 03.53 v.1.0.0 for information	5.4	SMG3	*1113/97*
930/97	Questions on IPR issues	4.1	Siemens	
931/97	Withdrawn	5.5	Vodafone	
932/97	IMT 2000 Family of Systems Concept	4.1	TC SMG Chairman	*1132/97*
933/97	PT SMG Job Description - Version 3.13	3.2	PT SMG	
934/97	PT SMG 1997 budget	3.2	PT SMG	

NUMBER	TITLE	AGENDA ITEM	SOURCE	*REPLACED BY TDOC*
935/97	PT SMG 1998 budget	3.2	PT SMG	
936/97	Summary of telephone conferences TIA - SMG/T1P1	4.6	PT SMG	*1109/97*
937/97	CRs to 03.60 (electronic copy only)	5.4	SMG3	
938/97	CRs to 04.64 (electronic copy only)	5.4	SMG3	
939/97	Performance comparison WCDMA vs TD - CDMA	4.1	ERICSSON	
940/97	Strategic CRs A090 and A092r1 on 08.08	5.3	SMG2	
941/97	Strategic CRs A246, A247r2 and A181r5 to GSM 04.08	5.3	SMG2	
942/97	Strategic CRs A022r1 to GSM 08.58 and A251r1 to GSM 04.08	5.3	SMG2	
943/97	GSM 08.14 v.2.0.0 - BSS - Serving GPRS Support Node (SGSN) interface; Gb interface Layer 1	5.3	SMG2	
944/97	GSM 08.16 v.2.0.0 - BSS -- Serving GPRS Support Node (SGSN) interface; Network Service	5.3	SMG2	
945/97	GSM 08.18 v.2.0.0 - BSS - Serving GPRS Support Note (SGSN) BSS GPRS Protocol (BSSGP)	5.3	SMG2	
946/97	Strategic CRs A005r2 to GSM 04.03 and A001r2 to GSM 04.04	5.3	SMG2	
947/97	GSM 04.60 V.1.0.0 - MS - BSS interface; Radio Link Control/Medium Access Control (RL/MAC) protocol	5.3	SMG2	
948/97	Not allocated			
949/97	Non Strategic CRs A009 to GSM 03.50 v. 4.2.0 and A011 to GSM 03.50 v.5.0.2	5.5	SMG11	
950/97	Non Strategic CR A001 to GSM 02.53 v.5.0.0	5.5	SMG11	
951/97	TS 04.53 v.1.0.0 - Inband Tandem Free Operation (TFO) of Speech Codecs; Service Description; Stage 3	5.5	SMG11	*1007/97*
952/97	Extension to Work Item Description for TFO	5.5	SMG11	
953/97	AMR performance requirements (AMR-3)	5.5	SMG11	
954/97	Draft LS to ITU-R TG8/1 on speech codecs	4.6	SMG11	
955/97	UMTS TS 22.05 v.1.4.1 - Services and Service Capabilities	4.2	SMG1	
956/97	UMTS 22.07 v.1.0.0 - Terminal and smart card concepts	5.2	SMG1	
957/97	UMTS 22.15 v.1.2.2 - Service aspects; Charging and Billing	4.2	SMG1	
958/97	UMTS TR 22.24 v.1.2.2 - New Charging and Accounting Mechanisms	4.2	SMG1	
959/97	UMTS TR 22.25 v.2.0.0 - Quality of Service and Network Performance	4.2	SMG1	
960/97	UMTS TR 22.60 v.1.0.0 - Mobile multimedia services including mobile Intranet and Internet services	4.2	SMG1	
961/97	UMTS 22.70 v.1.0.0 - Virtual Home Environment	4.2	SMG1	
962/97	UMTS TR 22.71 v.1.1.1 - Automatic Establishment of Roaming Relationships	4.2	SMG1	
963/97	UMTS 22.75 v.1.0.0 - Service aspects; Advanced Addressing	4.2	SMG1	
964/97	UMTS TR 22.80 V.2.0.1 - Relationship to other Standards	4.2	SMG1	
965/97	Non strategic CR A004 to UMTS 22.01 v.3.1.1	4.2	SMG1	
966/97	Non strategic CR A005 to UMTS 22.01 v.3.2.0	4.2	SMG1	

NUMBER	TITLE	AGENDA ITEM	SOURCE	*REPLACED BY TDOC*
967/97	Non strategic CR A006 to UMTS 22.01 v.3.2.0	4.2	SMG1	
968/97	SMG1-UMTS Meeting report Dec. 2-4, 1997 in Helsinki	4.2	SMG1	
969/97	UMTS 22.01 v.3.2.0 - Service Aspects; Services principles	4.2	SMG1	
970/97	Non strategic CRs A006 and A007 to GSM 02.01 v.5.2.0	5.2	SMG1	
971/97	Strategic CRs A015 to GSM 02.07, A004 to GSM 03.18 and A084 to GSM 09.02 Non strategic CR A206 to GSM 04.08	5.2	SMG1	
972/97	Strategic CRs A002 to GSM 02.42 v.5.0.1 and A016 to GSM 02.07 v.5.3.1	5.2	SMG1	
973/97	Non strategic CR A009 to GSM 02.11 v.5.0.0	5.2	SMG1	
974/97	Non strategic CR A021 to GSM 02.30 v.5.6.0	5.2	SMG1	*1149/97*
975/97	Non strategic CR A008 to GSM 02.41 v.5.1.0	5.2	SMG1	
976/97	Non strategic CRs A002 and A003 to GSM 02.60	5.2	SMG1	
977/97	Non strategic CR A014 to GSM 02.78 v.5.3.0	5.2	SMG1	
978/97	Strategic CRs A006 and A007 to GSM 02.81 and non strategic CRs A008 and A009 to GSM 02.81	5.2	SMG1	
979/97	Non strategic CRs A017 and A018 to GSM 02.93 v.5.4.0	5.2	SMG1	
980/97	Support of Private Numbering Plan (SPNP); Service Description, Stage 1	5.2	SMG1	
981/97	GSM 02.66 v.1.4.0 Support of Mobile Number Portability (MNP); Service Description; Stage 1	5.2	SMG1	
982/97	GSM 02.96 v.2.0.0 - Name Identification Supplementary Services; Stage 1	5.2	SMG1	
983/97	SMG1 Progress Summary Report on GSM & UMTS	5.2	SMG1	
984/97	Not allocated			
985/97	Strategic CR A031r1 to GSM 03.64 v.5.1.0	5.3	SMG2	
986/97	Strategic CRs A245, A248r1, A253 to GSM 04.08	5.4	SMG3	
987/97	Strategic CRs A010 to GSM 04.07 and A255 to GSM 04.08	5.4	SMG3	
988/97	Non strategic CR A008r5 to GSM 04.07 v.5.2.0	5.4	SMG3	
989/97	Non strategic CRs on 03.68, 03.69, 09.02 for ASCI, agreed by SMG3, Phase 2+, Release '97	5.4	SMG3	
990/97	Non strategic CRs on 04.65, agreed by SMG3, Phase 2+, Release '97	5.4	SMG3	
991/97	Strategic CR A249r2 to GSM 04.08 v.4.19.1	5.4	SMG3	
992/97	Contribution to the document UMTS 30.01 version 3.1.0 " UMTS Baseline Document"	4.2	UMTS Forum Market Aspects Group	
993/97	ETSI Status List	3.2	I. Doig, ETSI ECS Dept	
994/97	ETSI Membership List	4	I. Doig, ETSI ECS Dept	
995/97	Procedure of vote for indication of intent on UTRA in SMG#24 (Revision of TD 883/97)	4.1	SMG Chairman and ETSI's Legal Adviser	
996/97	Update of work item 184: Improved Data Rates through Optimised Modulation	5.6	Ericsson, Nokia, Airtouch	
997/97	Comments on TDoc SMG 1011/97	4.6	FRANCE TELECOM	
998/97	IPR Licensing Declaration - UTRA IPR	4.1	NEC	
999/97	ETSI/ARIB Cooperation Joint Statement NEC-PANA	4.1	NEC/PANASONIC	

NUMBER	TITLE	AGENDA ITEM	SOURCE	*REPLACED BY TDOC*
1000/97	Selection of Wideband CMDA on UTRA concept	4.1	NEC	
1001/97	GSM 10.60 v5.3.0 GPRS Project Management	5.1	PT80V	
1002/97	Strategic CR A010 to GSM 05.01 v. 5.2.0	5.3	SMG2	
1003/97	Strategic CRs A020 to A023 to GSM 05.02	5.3	SMG2	
1004/97	Strategic CRs A058, A059, A063 to GSM 05.05	5.3	SMG2	
1005/97	Strategic CRs A039 to A043 to GSM 05.08	5.3	SMG2	
1006/97	Strategic CR A005 to GSM 05.50 v. 5.1.0	5.3	SMG2	
1007/97	Inband Tandem Free Operation (TFO) of Speech Codecs; Service Description; Stage 3 (Revision of TD 951/97)	5.5	SMG11	
1008/97	Comments on CR to TS 22.01 Service Principles regarding multiple subscriptions	4.2	TELIA	
1009/97	Proposed changes to UMTS 30.01 v.3.0.0	4.4	TELIA	
1010/97	Workplan for SMG contributions to ITUCo-ordinator	4.6	ITU-T Co-ordinator, ITU-R	*1129/97*
1011/97	Contribution to ITU-T SG11 CR for Q-FIN	4.6	D. Williams, ITU-T Co-ordinator	
1012/97	Contribution to ITU-T SG11 CR for Q-FIN	4.6	D. Williams, ITU-T Co-ordinator	*1125/97*
1013/97	Contribution to ITU-T SG11 CR for Q-FIN	4.6	D. Williams, ITU-T Co-ordinator	
1014/97	Contribution to ITU-T SG11 and ITU-R TG 8/1	4.6	D. Williams, ITU-T Co-ordinator	
1015/97	EDGE Feasibility Study WI 184 - Improved Data Rates through Optimised Modulation v.1.0	5.3	SMG2	
1016/97	EDGE Standardization schedule	5.3	SMG2	
1017/97	SMG2 STATUS REPORT	5.3	SMG2	
1018/97	GSM 04.14 v.1.0.0 Individual equipment type requirements and interworking Special conformance testing functions	5.3	SMG2	
1019/97	Technical Analysis and Comparison of UTRA concept	4.1	FRANCE TELECOM	
1020/97	SMG#24 Agenda and Schedule	2	PT SMG	
1021/97	Chairman's report	1	TC SMG Chairman	
1022/97	Alpha concept evaluation - An alternative view	4.1	Motorola	
1023/97	Enhanced Delta	4.1	Motorola	
1024/97	Enhanced Delta - Questions and answers	4.1	Motorola	*1076/97*
1025/97	IMT-2000 Standardisation and Family Concept	4.6	Lucent Technologies	
1026/97	Proposed changes to Q.FIN and Two Tier Roaming	4.6	Lucent Technologies	
1027/97	Operator interest group	4.1	Operator interest group	
1028/97	Information on ODMA	4.1	Vodafone - Siemens - Ericsson	
1029/97	Strategic CR A002 to GSM 07.08 v.5.1.0	5.5	SMG4	
1030/97	Non strategic CR A002 to GSM 07.60 v.5.0.0	5.5	SMG4	
1031/97	GSM 07.10 Multiplexing protocol	5.5	SMG4	
1032/97	Proposed Liaison statements and project schedule for MEXE	5.5	SMG4	
1033/97	Justifications for TBR 19 and TBR 31 updates	5.5	PT SMG	
1034/97	Phase 2+ MS Testing	5.5	PT SMG	
1035/97	A letter from Georges Schmidt - Omnipoint for information	TC SMG Chairman		
1036/97	The answer to the letter from Georges Schmidt for information	TC SMG Chairman		

NUMBER	TITLE	AGENDA ITEM	SOURCE	*REPLACED BY TDOC*
1037/97	Letter from NTT DOCOMO for information	TC SMG Chairman		
1038/97	PT SMG Status Report	3.2	PT SMG Co-ordinator	
1039/97	Satellite Network Standardisation in SMG	PT SMG		
1040/97	Not allocated			
1041/97	SMG1 UMTS Text for Chapter 9 of UMTS 30.01	4.2	SMG1 UMTS	
1042/97	France Telecom position on UTRA concept	4.1	France Telecom	
1043/97	Migration and Evolution from GSM	4.2	Ericsson	
1044/97	Virtual Home Environment	4.2	SMG1 UMTS	
1045/97	Strategic CRs A004r3 to GSM 03.81 Phase 2 and Rel.96	5.4	SMG3	
1046/97	Side Events during SMG#24	1	TC SMG Chairman	
1047/97	Non strategic CR A004 to GSM 04.88 v.5.0.0	5.4	SMG3	
1048/97	Strategic CR A007r2 to GSM 04.80 v.5.0.1	5.4	SMG3	
1049/97	Operators' Requirements for UTRA (UMTS Terrestrial Radio	4.1	UMTSF Operators Group	
	Access)			
1050/97	SMG4 Issues at SMG#24	5.5	SMG4	
1051/97	SMG-CG 23ter summary	5.6	PT SMG	
1052/97	Withdrawal of some UMTS documents	4.5	PT SMG	
1053/97	UMTS Work Programme, draft UMTS 30.00 v.3.3.0	4.5	PT SMG	
1054/97	UMTS Baseline document, draft UMTS 30.01 v.3.2.0	4.5	PT SMG	
1055/97	Strategic CR A001 to UMTS 30.20 v.3.0.0	4.5	PT SMG	
1056/97	Not allocated			
1057/97	Availability of UMTS documents on DOCBOX	4.5	PT SMG	
1058/97	IMT-2000 co-ordination	4.2	TC SMG Chairman	*1110/97*
1059/97	GSM-API for SIM Toolkit applications based on JAVA	T-Mobil		
1060/97	Not allocated			
1061/97	UTRA Decision - IPR Statements	4.1	T-Mobil, Mannesmann Mobilfunk, E-Plus Mobilfunk	
1062/97	Future Organisation for GSM and UMTS Standardization	4.1	T-Mobil, Mannesmann Mobilfunk, E-Plus Mobilfunk	*1154/97*
1063/97	Proposed Work Item: GSM-API for SIM-Toolkit	5.5	T-Mobil	
1064/97	Letter of 09/12/97 - T1P1 document 97-213	4.1	T1P1 Chairman	
1065/97	Stage 1 of CNAP	5.2	Lucent Technologies	
1066/97	Report on Essential IPRs declared in relation to the work of SMG#24	4.1	ETSI	
1067/97	TD-CDMA (delta), the best of both worlds	4.1	Alcatel, Bosch, Italtel, Motorola, Nortel, Siemens and Sony	
1068/97	Handling of WI 184 (Improved Data Rates through Optimized Modulation)	5.3	DeTeMobil, Mannesmann, Bosch, Sony, Siemens	
1069/97	Dual Mode GSM/UMTS Terminal Complexity	4.2	Nokia, Ericsson	
1070/97	Not allocated			
1071/97	Radio Interface Selection for UMTS - WDCMA	4.1	Nokia	

NUMBER	TITLE	AGENDA ITEM	SOURCE	*REPLACED BY TDOC*
1072/97	Aspects on selecting Radio Access Technology for the 21st Century	4.1	Ericsson	
1073/97	UMTS Deployment by Private Operators	4.1	Philips	
1074/97	UMTS Radio Access for cost efficiency and consumer features of UMTS terminal	4.1	Philips Consumer Communications	
1075/97	CR Database	5.6	PT SMG	*1158/97*
1076/97	A summary of Enhanced TD-CDMA (Revision of Tdoc 1024/97)	4.1	Motorola	
1077/97	SMG2 Presentation	4.1	SMG2 Chairman	
1078/97	LS - WRC-99 Agenda Item on Global Radio Control Channel	4.1	CEPT ERC Task Group 1 on UMTS	
1079/97	ETNO FMC Group discussion on UMTS Radio aspects	4.1	ETNO FMC Chairman	
1080/97	Approval of specification GSM 07.10 TE-MS Multiplexer	5	France Telecom	
1081/97	LS on Calling Name Presentation (CNAP) Specifications	5.2	T1P1	
1082/97	Process Refinements	5.2	T1P1	
1083/97	T1P1 Harmonization Workplan	5.2	T1P1	
1084/97	Revised Work Plan for PCS 1900 Service Provider Number Portability	5.5	T1P1	
1085/97	Letter from T. IIDA, TTC for information	1	TC SMG Chairman	
1086/97	Non strategic CR on 03.02, agreed by SMG3, Phase 2+, Release '97	5.3	SMG3	
1087/97	TD-CDMA Performance Degradation with the New OQPSK Spreading	4.1	Fujitsu	
1088/97	Simulation Results on the Detectability of WB-BCCH Pilot Signal of the Delta concept	4.1	Fujitsu	
1089/97	Proposed way of collaboration EP SMG/TC TMN	4.3	TC TMN/WG5	
1090/97	UMTS Network Management Deliverables	4.3	TC TMN/WG5	
1091/97	SFR Statement regarding UMTS	4.2	SFR	
1092/97	Report to SMG#24 from STF SMG Funding Task Force meeting #1	3.3	Per Björndahl	
1093/97	Clarification with Respect to the documents on TD-CDMA Performance Tdoc 1087/97 and Tdoc 1088/97 by Fujitsu	4.1	Nortel, Motorola	
1094/97	ITU-T contributions table	4.6	ITU-T	
1095/95	Results of the vote	4.1	TC SMG Chairman	
1096/97	AMR Performances Specification	5.5	Bellsouth Mobility DCS	
1097/97	Draft LS to ERC TG1 in response to TG1 LS Tdoc 1078/97 - WRC-99 Agenda item on Global Radio Control Channel	4.1	ETSI SMG	*1163/97*
1098/97	Not allocated			
1099/97	Procedure for voting on UTRA in SMG#24bis	4.1	SMG Chairman and ETSI's Legal Adviser	*1157/97*
1100/97	SMG3 STATUS REPORT	5.4	SMG3	
1101/97	LS from WAP Management Board to ETSI	5.6	Nokia, Ericsson, Motorola and Unwired Planet	
1102/97	UMTS 30.06 (electronic copy only)	4.2	PT SMG	
1103/97	Fujitsu IPR statement	4.1	Fujitsu	
1104/97	Criteria of China Telecom to evaluate the Third Generation Cellular System	4.1	MPT PR. China	
1105/97	Some Comments on AMR	5.5	France Telecom	
1106/97	Voting representatives for Full ETSI members, at UTRA vote of indication; 16/12/1997	4.1	ETSI	

NUMBER	TITLE	AGENDA ITEM	SOURCE	*REPLACED BY TDOC*
1107/97	Enhanced Data rates for GSM Evolution (EDGE)	5.3	Motorola	
1108/97	GPRS Schedule	5.1	Motorola	
1109/97	Draft Summaries of two telephone conferences TIA/SMG (Revision of TD 936/97)	4.6	Ansgar Bergmann	
1110/97	IMT-2000 Co-ordination (Revision of TD 1058/97)	4.6	SMG Chairman	*1159/97*
1111/97	Proposed SMG Contribution to TG8/1 on IMT-2000 Family	4.6	On behalf of SMG PT ITU-R Co-ordinator	*1128/97*
1112/97	GSM UMTS WI Description Sheet	4.5	SMG3 Chairman	
1113/97	Withdrawn			
1114/97	Response to LS from WAP Consortium	Alcatel, Nortel, Siemens	*1161/97*	
1115/97	SMG9 SIM Aspects at SMG#24	5.5	SMG9 Chairman	
1116/97	IPR Policy of ARIB	4.1	ARIB	
1117/97	The meeting Schedule of IMT-2000 Stury Committee in ARIB	4	ARIB	
1118/97	NTTDoCoMo's View for the Development of Evolved GSM CN	4.1	NTTDoCoMo	
1119/97	Not allocated			
1120/97	LS on CNAP 02.96 v.2.0.0	5.2	T1P1.5	
1121/97	Requirements for UMTS/UTRA as Expressed by the DECT Community	4.3	DECT Forum Chairman	
1122/97	CRs to GSM 11.10-1 Phase 2 (RLP)	5.5	SMG7	
1123/97	CRs to GSM 11.10-1 Phase 2+ (RLP)	5.5	SMG7	
1124/97	Non strategic CR A044 to GSM 11.14 (Missing in TDoc 886/97)	5.5	SMG9	
1125/97	Contribution to ITU-T SG11 CR for Q-FIN (Revision of TD 1012/97)	4.6	Ericsson	
1126/97	Dataservices and SMS applicability for CTS phase 1	5.2	Ericsson	
1127/97	Status report of the CTS work item at SMG#24	5.2	CTS Work Item Rapporteur	
1128/97	Proposed SMG contribution to TG8/1 on IMTS-2000 Family (revision of TDoc 1111/97)	4.6	On behalf of SMG PT ITU-R Co-ordinator	
1129/97	Workplan for SMG Contributions to ITU (revision of TDoc 1010/97)	4.6	ITU-T Co-ordinator, ITU-R Co-ordinator	
1130/97	Not allocated			
1131/97	Not allocated			
1132/97	IMT-2000 Family of systems (Revision of Tdoc 932/97)	SMG#24		
1133/97	UMTS Policy	4	GSM MoU Chairman	
1134/97	Approval of GSM TS 07.10 Multiples protocol	Ericsson, Siemens		
1135/97	Report on implementation of Version Management decided by SMG#23 version 6.0	5.6	PT SMG	
1136/97	SMG's Plenary and Steering Group Dates 1998/1999	6	SMG Co-ordination Group	*1155/97*
1137/97	Draft agenda SMG#24 Bis	6	SMG Co-ordination Group	*1156/97*
1138/97	Draft Voting procedure for UTRA	6	SMG Co-ordination Group	*1157/97*
1139/97	Not allocated			
1140/97	LS MS/TE Infra Red interface and the IrDA Special Interest Group	5.5	SMG4	

NUMBER	TITLE	AGENDA ITEM	SOURCE	*REPLACED BY TDOC*
1141/97	Vodafone Position on UMTS Radio Interface Standard Selection	4.2	Vodafone Ltd	
1142/97	Future Organisation for GSM and UMTS Standardization E-Plus Mobilfunk	4.1	T-Mobil, Mannesmann Mobilfunk,	*1154/97*
1143/97	CTS Stage 1 Phase 1	5.2	Alcatel	
1144/97	CR A042r2 to GSM 05.08 R97	5.3	SMG2	
1145/97	LS to T1P1 - Response to Letter of process refinements	SMG		
1146/97	MoU TWG/ECTEL Activities on Handset Antenna and Battery Life Measurements	Chairman Ad Hoc Group		
1147/97	WI Description for EDGE-NSS	5.3	EDGE WI Drafting Group	
1148/97	WI Description for EDGE-BSS	5.3	EDGE WI Drafting Group	
1149/97	Non strategic CR affecting GSM 02.30 (Revision of TD 974/97)	5.2	SMG1 Chairman	
1150/97	Road map and Work item data base version 24.0	5.6	PT SMG	
1151/97	Summary of SMG Co-ordination Meeting #24	6	PT SMG	
1152/97	Proposed changes to UMTS 30.01 v.3.0.0	4.4	Telia	
1153/97	Meeting dates of SMG3 meetings and request for hosts	5.4	SMG3	
1154/97	Future Organisation for GSM and UMTS Standardization (Revision of TD 1142/97)	4.1	SMG	
1155/97	SMG's Plenary and Steering Group Dates 1998/1999 (Revision of TD 1136/97)	6	SMG Co-ordination Group	
1156/97	Draft Agenda SMG#24BIS (Revision of TD 1137/97)	6	TC SMG Chairman	
1157/97	Procedure for voting on UTRA in SMG#24 bis (Revision of TD 1138/97)	6	SMG	
1158/97	CR Database (Revision of TD 1075/97)	PT SMG		
1159/97	IMT-2000 Co-ordination (Revision of TD 1110/97)	4.6	SMG Chairman	
1160/97	LS to IrDA Group on GSM 07.10	SMG		
1161/97	Response to LS from WAP Consortium (Revision of TD 1114/97)	Alcatel, Nortel, Siemens		
1162/97	Preliminary announcement of EDGE Workshop	Nokia		
1163/97	LS to ERC TG1 in response to TG1 LS Tdoc 1078/97 - WRC-99 Agenda item on Global Radio Control Channel (Revision of TD 1097/97)	PT SMG		
1164/97	Information on TTA visit to ETSI	PT SMG		

GSM/DCS STATUS LIST AFTER SMG#24

GSM NUMBER AND TITLE / CURRENT VERSION (*)	RESPONSIBLE PT SMG / STCs	HISTORY	RAPPORTEUR + COMPANY	ETS VERSION + NR
01.00 Working procedures for SMG and PT12				
5.1.1	AB STF12	n.a.	---none---	
01.02 General Description of a GSM Public Land Mobile Network (PLMN).				
4.0.2	RT SMG1 STF12 SMG2 SMG3	#7: 4.0.1 #8: 4.0.2	N.Jörgensen Tele Denmark	ETR 099
5.0.0	RT SMG1 STF12 SMG2 SMG3	#17: 5.0.0	N.Jörgensen Tele Denmark	GTS
01.04 Abbreviations and Acronyms.				
4.1.2	RT STF12 SMG1-4 SMG6-8	#8: 4.0.1 #9: 4.0.3 #10: 4.0.4 #11: 4.1.0 #12: 4.1.1 #14: 4.1.2	R.Tarazi ETSI PT12	ETR 100
5.0.1	RT STF12 SMG1-4 SMG6-8	#17: 5.0.0 #20: 5.0.1	R.Tarazi ETSI PT12	GTS
REP 3.0.1	RT STF12 SMG1 SMG2 SMG3 SMG4		--- none ---	- -
01.05 Definitions.				
4.0.0	RT STF12 SMG1 SMG2 SMG3 SMG4	n.a.	--- none ---	ETR
01.48 ISDN-based DECT/GSM interworking; Feasibility study				
5.0.1	RT SMG1	#19: 5.0.0 #20: 5.0.1	I.Graetz Siemens	GTS
02.01 Principles of Telecommunication Services Supported by a GSM Public Land Mobile Network(PLMN).				
3.2.0	RT SMG1		--- none ---	- -
4.6.0	RT SMG1	#7: 4.2.1 #8: 4.3.0 #10: 4.4.0 #11: 4.4.1 #12: 4.5.0 #15: 4.6.0	--- none ---	300 500
5.3.0	RT SMG1	#16: 5.0.0 #17: 5.1.0 #20: 5.2.0 #24: 5.3.0	--- none ---	GTS

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GSM NUMBER AND TITLE CURRENT VERSION (*)	RESPONSIBLE PT SMG / STCs	HISTORY	RAPPORTEUR + COMPANY	ETS VERSION + NR
02.02 Bearer Services (BS) Supported by a GSM Public Land Mobile Network (PLMN)				
3.2.0 RT	SMG1		D.Richards AT&T NSI	- -
4.2.2 RT	SMG1	#7: 4.1.1 #8: 4.2.0	D.Richards AT&T NSI	300 501
5.3.0 RT	SMG1	#16: 5.0.0 #18: 5.1.0 #20: 5.2.0. #22: 5.3.0	D.Richards AT&T NSI	GTS
02.03 Teleservices Supported by a GSM Public Land Mobile Network (PLMN).				
3.4.0 RT	SMG1		G.Schmidt T-Mobil	- -
4.3.1 RT	SMG1	#7: 4.2.2 #11: 4.3.0	G.Schmidt T-Mobil	300 502
5.3.0 RT	SMG1	#17: 5.0.0 #19: 5.1.0 #20: 5.1.1 #21: 5.2.0 #22: 5.3.0	G.Schmidt T-Mobil	300 905
02.04 General on Supplementary Services				
3.7.1 RT	SMG1		D.Richards AT&T NSI	- -
4.9.1 RT	SMG1	#7: 4.5.1 #8: 4.6.0 #10: 4.7.0 #12: 4.8.0 #15: 4.9.0 #16: 4.9.1	D.Richards AT&T NSI	300 503
5.7.0 RT	SMG1	#16: 5.0.0 #17: 5.1.0 #18: 5.2.0 #19: 5.3.0 #20: 5.4.0 #21: 5.5.0 #22: 5.6.0 #23: 5.7.0	D.Richards AT&T NSI	300 908
02.06 Types of Mobile Stations (MS).				
3.2.0 RT	SMG1		N.Hodgson Vodafone I.Crawford	- -
4.5.0 RT	SMG1	#7: 4.1.1 #8: 4.2.0 #14: 4.3.0 #16: 4.4.0 #22: 4.5.0	I.Crawford Vodafone	300 504
5.1.0 RT	SMG1	#20: 5.0.0 #21: 5.1.0	I.Crawford Vodafone	300 919
DCS 3.0.0 RT	SMG1		--- none ---	- -
02.07 Mobile Station (MS) Features.				
3.4.1 RT	SMG1		I.Crawford Vodafone	- -
4.8.0 RT	SMG1	#7: 4.4.1 #8: 4.4.2 #10: 4.5.0 #11: 4.6.0 #15: 4.7.0 #22: 4.8.0	I.Crawford Vodafone	300 505
5.4.0 RT	SMG1	#17: 5.0.0 #18: 5.1.0 #20: 5.2.0 #22: 5.3.0 #24: 5.4.0	I.Crawford Vodafone	300 906

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GSM NUMBER AND TITLE / CURRENT VERSION (*)	RESPONSIBLE PT SMG / STCs	HISTORY	RAPPORTEUR + COMPANY		ETS VERSION + NR
02.08 (Quality of Service). WITHDRAWN					
n.a. RT	SMG1 SMG2 SMG3 SMG4	WITHDRAWN	--- none ---		ETR 101
02.09 Security Aspects.					
3.0.1 PA	SMG10 SMG1	#6b: 3.1.0	N.Renaud	France Telecom	- -
4.4.0 PA	SMG10 SMG1 SMG3	#7: 4.2.1 #12: 4.3.0 #22: 4.4.0	N.Renaud	France Telecom	300 506
5.1.0 PA	SMG10 SMG1	#20: 5.0.0 #22: 5.1.0	N.Renaud	France Telecom	300 920
02.11 Service Accessibility.					
3.7.0 RT	SMG1 SMG3 SMG2	#4: 3.7.0	P.Gaskell	One2One	- -
4.9.0 RT	SMG1 SMG3 SMG2	#7: 4.5.1 #10: 4.6.0 #16: 4.8.0 #17: 4.9.0	P.Gaskell	One2One	300 507
5.0.1 RT	SMG1 SMG3 SMG2	#20: 5.0.0	N.Renaud	France Telecom	300 921
DCS 3.0.1 RT	SMG1 SMG3 SMG2	#4: 3.1.0	--- none ---		- -
02.16 International Mobile Station Equipment Identities (IMEI).					
3.0.1 RT	SMG1		N.Renaud	France Télécom	- -
4.5.0 RT	SMG1	#7: 4.3.1 #12: 4.4.0 #13: 4.5.0	N.Renaud	France Telecom	300 508
5.0.0 RT	SMG1	#20: 5.0.0	N.Renaud	France Telecom	GTS
02.17 Subscriber Identity Modules, Functional Characteristics					
3.2.0 RT	SMG1 SMG9		K.Vedder	GAO	- -
4.3.3 RT	SMG1 SMG9	#7: 4.2.0 #8: 4.3.1	K.Vedder	GAO	300 509
5.0.1 RT	SMG1 SMG9	#20: 5.0.0	K.Vedder	GAO	300 922
02.22 Stage 1 for Personalisation of GSM ME					
5.3.0 RT	SMG1	#17: 5.0.0 #19: 5.1.0 #20: 5.2.0 #23: 5.3.0	P.Gaskell	One2One	GTS

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GSM NUMBER AND TITLE CURRENT VERSION (*)	RESPONSIBLE PT SMG / STCs	HISTORY	RAPPORTEUR + COMPANY	ETS VERSION + NR
02.24	**Description of Charge Advice Information (CAI).**			
4.5.0 RT	SMG1	#7: 4.1.1 #8: 4.2.0 #9: 4.2.1 #10: 4.3.0 #11: 4.4.0	I.Crawford Vodafone	300 510
5.0.1 RT	SMG1	#20: 5.0.0	I.Crawford Vodafone	300 923
02.30	**Man-machine Interface (MMI) of the Mobile Station (MS).**			
3.9.0 RT	SMG1 SMG3		I.Crawford Vodafone	v.3.9.0 300 068
4.13.0 RT	SMG1 SMG3	#7: 4.9.1 #8: 4.10.0 #10: 4.11.0 #12: 4.12.0 #13: 4.13.0	I.Crawford Vodafone	300 511
5.7.0 RT	SMG1	#16: 5.0.0 #17: 5.1.0 #18: 5.2.0 #19: 5.3.0 #20: 5.3.1 #21: 5.4.0 #22: 5.5.0 #23: 5.6.0 #24: 5.7.0	I.Crawford Vodafone	300 907
02.34	**High Speed Circuit Switched Data (HSCSD) - Stage 1**			
5.1.0 RT	SMG1	#21: 5.1.0	I.Crawford Vodafone	
02.40	**Procedures for Call Progress Indications**			
3.2.0 RT	SMG1 SMG3		I.Crawford Vodafone	- -
4.5.0 RT	SMG1 SMG3	#7: 4.2.1 #9: 4.3.0 #10: 4.4.0	I.Crawford Vodafone	300 512
5.0.0 RT	SMG1 SMG3	#20: 5.0.0	I.Crawford Vodafone	GTS
02.41	**Operator Determined Barring**			
4.5.2 RT	SMG1	#7: 4.4.1 #8: 4.5.0	I.Crawford Vodafone	300 513
5.2.0 RT	SMG1	#16: 5.0.0 #21: 5.1.0 #24: 5.2.0	I.Crawford Vodafone	GTS
02.42	**Network Identity and Timezone (NITZ); Service Description, Stage 1**			
5.1.0 RT	SMG1	#19: 5.0.0 #24: 5.1.0	L.Giles BRT	GTS
02.53	**Tandem Free Operation (TFO); Service description; Stage 1**			
5.1.0 PU	SMG11	#24: 5.1.0		

(*) For Phase 1 : 1992 Release

GSM NUMBER AND TITLE CURRENT VERSION (*)	RESPONSIBLE PT SMG / STCs	HISTORY	RAPPORTEUR + COMPANY	ETS VERSION + NR
02.60	**General Packet Radio Service Stage 1 Description**			
5.2.0 RT	SMG1	#21: 5.0.0 #23: 5.1.0 #24: 5.2.0	A.Conrad T-Mobil	
02.63	**Packet Data on Signalling channels Service (PDS) - Stage 1**			
5.0.0 RT	SMG1	#19: 5.0.0	A.Conrad T-Mobil	GTS
02.67	**Enhanced Multi-Level Precedence and Pre-emption Service (eMLPP) - Stage 1**			
5.0.4 PA	SMG1	#16: 5.0.0 #19: 5.0.1 #20: 5.0.2 #22: 5.0.4	D.Münning Detecon	300 924
02.68	**Voice Group Call Service (VGCS) - Stage 1**			
5.1.3 PA	SMG1	#16: 5.0.0 #17: 5.1.0 #20: 5.1.1 #21: 5.1.2 #22: 5.1.3	D.Münning Detecon	300 926
02.69	**Voice Broadcast Service (VBS) - Stage 1**			
5.1.3 PA	SMG1	#16: 5.0.0 #17: 5.1.0 #20: 5.1.1 #21: 5.1.2 #22: 5.1.3	D.Münning Detecon	300 926
02.72	**Call Deflection Service description, Stage 1**			
5.0.0 RT	SMG1	#19: 5.0.0	S.Habermann T-Mobil	GTS
02.78	**Customized Applications for Mobile network Enhanced Logic (CAMEL); Service definition (Stage 1)**			
5.4.0 RT	SMG1	#19: 5.0.0 #20: 5.1.0 #21: 5.1.1 #22: 5.2.0 #23: 5.3.0 #24: 5.4.0	P.Waerleus Telia Mobitel	GTS
02.79	**Support of Optimal Routeing (SOR); Service definition (Stage 1)**			
5.1.0 RT	SMG1	#19: 5.0.0 #20: 5.1.0	S.Frey SFR	GTS
02.81	**Line Identification Supplementary Services - Stage 1.**			
4.6.0 RT	SMG1	#7: 4.3.1 #10: 4.4.0 #11: 4.4.1 #12: 4.5.0 #16: 4.5.1 #24: 4.6.0	L.Larsson Swedish Telecom	300 514
5.1.0 RT	SMG1	#20: 5.0.0 #24: 5.1.0	L.Larsson Swedish Telecom	GTS

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GSM NUMBER AND TITLE CURRENT VERSION (*)	RESPONSIBLE PT SMG / STCs	HISTORY	RAPPORTEUR + COMPANY		ETS VERSION + NR
02.82	**Call Forwarding (CF) Supplementary Services - Stage 1**				
3.6.1	RT SMG1		N.Renaud	France Telecom	- -
4.5.2	RT SMG1	#7: 4.4.2 #10: 4.5.0 #16: 4.5.2	N.Renaud	France Telecom	300 515
5.0.0	RT SMG1	#16: 5.0.0	L.Larson	Swedish Telecom	GTS
02.83	**Call Waiting (CW) and Call Hold (HOLD) Supplementary Services - Stage 1**				
4.6.7	RT SMG1	#7: 4.6.3 #10: 4.6.5 #16: 4.6.7	N.Jörgensen	Tele Denmark Mobil	300 516
5.0.0	RT SMG1	#20: 5.0.0	N.Jörgensen	Tele Denmark Mobil	GTS
02.84	**MultiParty (MPTY) Supplementary Services - Stage 1**				
4.4.7	RT SMG1	#7: 4.4.2 #11: 4.4.5 #16: 4.4.7	E.Postmann	Siemens	300 517
5.0.0	RT SMG1	#20: 5.0.0	E.Postmann	Siemens	GTS
02.85	**Closed User Group (CUG) Supplementary Services - Stage 1.**				
4.2.6	RT SMG1	#7: 4.2.2 #16: 4.2.6	L.Larsson	Swedish Telecom	300 518
5.0.0	RT SMG1	#20: 5.0.0	L.Larsson	Swedish Telecom	GTS
02.86	**Advice of Charge (AoC) Supplementary Services - Stage 1**				
4.1.5	RT SMG1	#7: 4.1.1 #16: 4.1.5	I.Crawford	Vodafone	300 519
5.0.0	RT SMG1	#20: 5.0.0	I.Crawford	Vodafone	GTS
02.87	**User-to-User Signalling (UUS) Service Description, Stage 1**				
5.3.0	RT SMG1	#18: 5.0.0 #20: 5.1.0 #21: 5.2.0 #23: 5.3.0	S.Habermann	T-Mobil	GTS
02.88	**Call Barring (CB) Supplementary Services - Stage 1.**				
3.6.1	RT SMG1		G.Schmidt	T-Mobil	- -
4.4.3	RT SMG1	#7: 4.3.0 #8: 4.4.0 #16: 4.4.3	G.Schmidt	T-Mobil	300 520
5.0.0	RT SMG1	#20: 5.0.0	G.Schmidt	T-Mobil	GTS

(*) For Phase 1 : 1992 Release

GSM NUMBER AND TITLE CURRENT VERSION (*)	RESPONSIBLE PT SMG / STCs	HISTORY	RAPPORTEUR + COMPANY		ETS VERSION + NR
02.90	**Stage 1 Decision of Unstructured Supplementary Service Data (USSD)**				
4.1.0	RT SMG1	#8: 4.0.1 #21: 4.1.0	A.Conrad	T-Mobil	300 625
5.1.0	RT SMG1	#20: 5.0.0 #21: 5.1.0	A.Conrad	T-Mobil	GTS
02.91	**Explicit Call Transfer (ECT)**				
5.1.1	RT SMG1	#16: 5.0.0 #17: 5.0.1 #19: 5.1.0 #21: 5.1.1	E.Postmann	Siemens	GTS
02.93	**Completion of Calls to Busy Subcriber (CCBS) Service Description - Stage 1**				
5.5.0	RT SMG1	#16: 5.0.0 #19: 5.1.0 #20: 5.2.0 #22: 5.3.0 #23: 5.4.0 #24: 5.5.0	N. Jörgenen	Tele Danmark Mobile	GTS
02.95	**Digital cellular telecommunications system (Phase 2+); Support of Private Numbering Plan (SPNP); Service description, Stage 1**				
5.2.0	RT SMG1	#16: 5.0.0 #18: 5.1.0 #19: 5.2.0	T. Sundbye		GTS
02.97	**Multile Subscriber Profile (MSP) Service description, Stage 1**				
5.2.0	RT SMG1	#19: 5.0.0 #22: 5.1.0 #23: 5.2.0	S.Manning	Vodafone	GTS
03.01	**Network Functions**				
3.1.1	FP SMG3		P.Gaasvik	Comviq GSM AB	- -
4.0.4	FP SMG3	#7: 4.0.1	P.Gaasvik	Comviq GSM AB	300 521
5.1.0	FP SMG3	#17: 5.0.0 #18: 5.1.0	P.Gaasvik	Comviq GSM AB	GTS
03.02	**Network Architecture**				
3.1.4	FP SMG3 SMG4		P.Gaasvik	Comviq GSM AB	- -
4.2.1	FP SMG3 SMG4	#7: 4.0.1 #17: 4.1.0 #18: 4.2.1	P.Gaasvik	Comviq GSM AB	300 522
5.3.0	FP SMG3 SMG4	#17: 5.0.0 #18: 5.1.0 #23: 5.2.0 #24: 5.3.0	P.Gaasvik	Comviq GSM AB	GTS

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GSM NUMBER AND TITLE CURRENT VERSION (*)	RESPONSIBLE PT SMG / STCs	HISTORY	RAPPORTEUR + COMPANY		ETS VERSION + NR
03.03 Numbering, Addressing and Identification					
3.6.0	SA SMG3 SMG4	#8: 3.6.0	P.Gaasvik	Comviq GSM AB	- -
4.9.0	SA SMG3 SMG4	#7: 4.5.0 #8: 4.6.0 #9: 4.8.0 #12: 4.9.0	P.Gaasvik	Comviq GSM AB	300 523
5.0.2	SA SMG3 SMG4	#17: 5.0.0 #20: 5.0.1	P.Gaasvik	Comviq GSM AB	300 927
03.04 Signalling Requirements Relating to Routing of Calls to Mobile Subscribers					
3.1.0	SA SMG3 SMG4 SPS		C.Vernhes	France Telecom	- -
4.0.4	SA SPS SMG3 SMG4	#7: 4.0.1	--- none ---		300 524
5.0.0	SA SPS SMG3 SMG4	#20: 5.0.0	--- none ---		GTS
03.05 Technical Performance Objectives					
3.2.0	SA SMG3		--- none ---		- -
4.1.0	SA SMG3	#7: 4.0.0 #19:4.1.0	--- none ---		ETR 102
5.0.0	SA SMG3	#20: 5.0.0	--- none ---		ETR 351
03.07 Restoration Procedures					
3.2.1	SA SMG3		I.Park	Vodafone	- -
4.3.1	SA SMG3	#7: 4.2.0 #10: 4.3.0	I.Park	Vodafone	300 525
5.1.0	SA SMG3	#20: 5.0.0 #23: 5.1.0	I.Park	Vodafone	GTS
03.08 Organization of Subscriber Data					
3.7.0	SA SMG3		R.Bauer	Alcatel Sel	- -
4.8.0	SA SMG3	#7: 4.5.0 #8: 4.5.1 #9: 4.6.0 #10: 4.7.0 #18: 4.8.0	R.Bauer	Alcatel Sel	300 526
5.2.0	SA SMG3	#18: 5.0.0 #21: 5.1.0 #23: 5.2.0	R. Bauer	Alcatel Sel	GTS

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GSM NUMBER AND TITLE / CURRENT VERSION (*)	RESPONSIBLE PT SMG / STCs	HISTORY	RAPPORTEUR + COMPANY	ETS VERSION + NR
03.09 Handover Procedures				
3.2.1 FP	SMG3 SMG2		--- none ---	- -
4.6.0 FP	SMG3 SMG2	#7: 4.1.0 #8: 4.2.0 #9: 4.2.1 #10: 4.3.0 #11: 4.4.0 #12: 4.5.0 #17: 4.6.0	Ian Sayers, Wavelink Communications	300 527
5.1.0 FP	SMG3 SMG2	#18: 5.0.0 #22: 5.1.0	I. Sayers, Wavelink Communications	GTS
03.10 GSM Public Land Mobile Network (PLMN) Connection Types.				
3.3.0 SA	SMG4 SMG1 SMG2 SMG3		M.Valo, Nokia	- -
4.3.1 SA	SMG4 SMG1 SMG2 SMG3	#7: 4.2.1 #8: 4.3.0	M.Valo, Nokia	300 528
5.4.0 SA	SMG1	#16: 5.0.0 #21: 5.1.0 #22: 5.2.0 #23: 5.3.0 #24: 5.4.0	M.Valo, Nokia	GTS
03.11 Technical Realization of Supplementary Services - General Aspects				
3.1.1 PA	SMG3		S.Habermann T-Mobil	- -
4.10.1 PA	SMG3	#7: 4.4.0 #9: 4.5.0 #10: 4.6.0 #11: 4.7.0 #12: 4.8.0 #14: 4.9.0 #18: 4.10.1	S.Habermann T-Mobil	300 529
5.0.1 PA	SMG3	#20: 5.0.0	S.Habermann T-Mobil	300 928
03.12 Location Registration Procedures				
3.3.0 SA	SMG3		P.Gaasvik, Comviq GSM AB	- -
4.4.2 SA	SMG3	#7: 4.3.0 #8: 4.4.0	P.Gaasvik, Comviq GSM AB	300 530
5.0.0 SA	SMG3	#20: 5.0.0	P.Gaasvik, Comviq GSM AB	GTS
DCS 3.0.1 SA	SMG3		--- none ---	- -
03.13 Discontinuous Reception (DRX) in the GSM System				
3.0.2 PU	SMG2		M.Dolan, AT&T	- -
4.0.4 PU	SMG2	#7: 4.0.1	---none---	300 531
5.0.0 PU	SMG2	#17: 5.0.0	---none---	GTS

(*) For Phase 1 : 1992 Release

GSM NUMBER AND TITLE / CURRENT VERSION (*)	RESPONSIBLE PT SMG / STCs	HISTORY	RAPPORTEUR + COMPANY		ETS VERSION + NR
03.14 Support of Dual Tone Multi-Frequency Signalling (DTMF) via the GSM System					
3.0.2	FP SMG3		--- none ---		- -
4.1.1	FP SMG3	#7: 4.0.0 #10: 4.1.0	---none---		300 532
5.0.0	FP SMG3	#20: 5.0.0	---none---		GTS
03.15 Technical Realization of Operator Determined Barring					
4.3.1	SA SMG3	#7: 4.2.0 #10: 4.3.0	I.Park	Vodafone	300 533
5.1.0	SA SMG3	#16: 5.0.0 #21: 5.1.0	I. Park	Vodafone	GTS
03.16 Subscriber Data Management					
4.2.1	PA SMG3	#14: 4.1.0 #16: 4.1.1 #18: 4.2.1	H.Dettner	Siemens	300 629
5.2.0	PA SMG3	#18: 5.0.0 #21: 5.1.0 #23: 5.2.0	H. Dettner	Siemens	GTS
03.18 Basic Call Handling					
5.3.0	SA SMG3	#21: 5.0.0 #22: 5.1.0 #23: 5.2.0 #24: 5.3.0	I.Park	Vodafone	
03.20 Security-related Network Functions					
3.3.2	PA SMG10 SMG3 SMG2		R.Thomas	France Telecom	- -
4.4.0	PA SMG10 SMG3 SMG2	#7: 4.2.1 #10: 4.3.0 #17: .3.2 #21: 4.4.0	R.Thomas	France Telecom	300 534
5.2.0	PA SMG10 SMG3 SMG2	#20: 5.0.0 #21: 5.1.0 #23: 5.2.0	R.Thomas	France Telecom	300 929
EXT 3.0.0	PA SMG10 SMG3 SMG2	#7: 3.0.0	R.Thomas	France Telecom	
03.22 Functions Related to Mobile Station (MS)in Idle Mode.					
4.11.0	PU SMG2 SMG3	#7: 4 .4.0 #9: 4.5.0 #10: 4.6.0 #11: 4.7.0 #12: 4.8.0 #14: 4.9.0 #16: 4.10.0 #17: 4.11.0	---none---		300 535
5.2.0	PU SMG2 SMG3	#20: 5.0.0 #21: 5.1.0 #22: 5.2.0	---none---		300 930

(*) For Phase 1 : 1992 Release

GSM NUMBER AND TITLE CURRENT VERSION (*)	RESPONSIBLE PT SMG / STCs	HISTORY	RAPPORTEUR + COMPANY		ETS VERSION + NR
03.26	**Multiband operation of GSM/DCS 1800 by a single operator**				
4.3.0 PU	SMG2 SMG3	#18: 4.1.0 #22: 4.2.0 #23: 4.3.0			TC-TR 005
5.1.0 PU	SMG2 SMG3	#20: 5.0.0 #22: 5.1.0			ETR 366
03.30	**Radio Network Planning Aspects.**				
4.3.0 PU	SMG2	#7: 4.2.0 #9: 4.2.1 #13: 4.3.0	P.Stevens	One2One	ETR 103
5.0.0 PU	SMG2	#20: 5.0.0	P.Stevens	One2One	ETR 364
03.32	**Universal Geographical Area Description (GAD)**				
5.0.0 SA	SMG3	#23: 5.0.0			
03.34	**GSM 03.34 HSCSD Stage 2**				
5.0.1 FP	SMG3	#21: 5.0.0			
03.38	**Alphabets and Language Specific Information for GSM**				
4.0.1 SA	SMG4	#10: 4.0.0	I.Harris	Vodafone	300 628
5.6.0 SA	SMG4	#16: 5.0.0 #17: 5.1.0 #18: 5.2.0 #19: 5.3.0 #20: 5.4.0 #21: 5.5.0 #22: 5.6.0	I.Harris	Vodafone	300 900
03.39	**Digital Cellular Telecommunications System (Phase 2) Interface Protocols for the Connection of Short Message Service Centers (SMSCs) to Short Message Entities (SMEs)**				
4.0.0 SA	SMG4	#16: 4.0.0	---none---		ETR 243
5.0.0 SA	SMG4	#20: 5.0.0	---none---		ETR 365
03.40	**Technical Realization of the Short Message Service (SMS) Point-to-point(PP)**				
3.6.0 SA	SMG4 SMG3	#8: 3.6.0 #9: 3.7.0	K.Holley	BT	- -
4.13.0 SA	SMG4 SMG3	#7: 4.6.0 #8: 4.7.0 #10: 4.8.1 #11: 4.9.0 #15: 4.11.0 #16: 4.12.0 #18: 4.13.0	K.Holley	BT	300 536
5.8.0 SA	SMG4	#16: 5.0.0 #17: 5.1.0 #18: 5.2.0 #19: 5.3.0 #20: 5.4.0 #21: 5.5.0 #22: 5.6.0 #23: 5.7.0 #24: 5.8.0	K. Holley	BT	300 901

(*) For Phase 1 : 1992 Release

GSM NUMBER AND TITLE CURRENT VERSION (*)	RESPONSIBLE PT SMG / STCs	HISTORY	RAPPORTEUR + COMPANY	ETS VERSION + NR
03.41 Technical Realization of Short Message Service Cell Broadcast (SMSCB).				
3.4.0	SA SMG4 SMG2		D.Richards AT&T	v.3.4.0 300 069
4.11.0	SA SMG4 SMG2	#7: 4.4.1 #8: 4.5.0 #9: 4.6.0 #10: 4.7.0 #11: 4.8.0 #12: 4.9.0 #13: 4.10.0 #16: 4.11.0	E.Daniel AT&T NSI	300 537
5.8.0	SA SMG4 SMG2	#16: 5.0.0 #17: 5.1.0 #18: 5.2.0 #19: 5.3.0 #20: 5.4.0 #21: 5.5.0 #22: 5.6.0 #23: 5.7.0 #24: 5.8.0	P. Pike Lucent Technologies	300 902
03.42 SMS Compression				
5.2.0	SA SMG4	#21: 5.0.0 #22: 5.1.0 #23: 5.2.0		
03.43 Support of Videotex.				
3.0.1	SA SMG4		Di Tria CSELT	- -
4.1.2	SA SMG4	#7: 4.1.1	Di Tria CSELT	ETR 104
5.0.0	SA SMG4	#20: 5.0.0	Di Tria CSELT	ETR 352
03.44 Support of Teletex in a GSM Public Land Mobile Network (PLMN).				
3.0.1	SA SMG4		--- none ---	- -
4.0.1	SA SMG4	#7: 4.0.0	--- none ---	ETR 105
5.0.0	SA SMG4	#20: 5.0.0	--- none ---	ETR 353
03.45 Technical Realization of Facsimile Group 3 Service - transparent				
3.1.0	SA SMG4	#5: 3.2.0 #6: 3.3.0	Di Tria CSELT	v.3.3.0 300 070
4.5.0	SA SMG4	#7: 4.2.1 #8: 4.3.0 #9: 4.3.1 #10: 4.4.0 #11: 4.4.1 #14: 4.5.0	Di Tria CSELT	300 538
5.2.0	SA SMG4	#20: 5.0.0 #21: 5.1.0 #5.2.0	Di Tria CSELT	300 931

(*) For Phase 1 : 1992 Release

GSM NUMBER AND TITLE CURRENT VERSION (*)	RESPONSIBLE PT SMG / STCs	HISTORY	RAPPORTEUR + COMPANY		ETS VERSION + NR	
03.46	**Technical Realization of Facsimile Group 3 Service - non transparent**					
3.2.1	SA SMG4	#5: 3.2.1	G.Baumann	T-Mobil	v.3.2.1	300 071
4.1.2	SA SMG4	#7: 4.0.1 #8: 4.0.2 #11: 4.1.0	G.Baumann	T-Mobil		300 539
5.0.0	SA SMG4	#20: 5.0.0	G.Baumann	T-Mobil		GTS
03.47	**Example Protocol Stacks for Interconnecting Service Centre(s) (SC) and Mobile Services Switching Centre(s) (MSC).**					
4.4.0	SA SMG4	#7: 4.1.0 #8: 4.2.0 #12: 4.2.1 #18: 4.4.0				ETR 106
5.0.0	SA SMG4	#20: 5.0.0				ETR 354
03.49	**Example Protocol Stacks for Interconnecting Cell Broadcast Centre (CBC) and Base Station Controler (BSC)**					
4.6.0	SA SMG4	#7: 4.1.0 #8: 4.2.0 #11: 4.3.0 #12: 4.4.0 #13: 4.5.0 #16:4.6.0	E.Daniel	AT&T NSI		ETR 107
5.7.0	SA SMG4	#16: 5.0.0 #18: 5.1.0 #19: 5.2.0 #20: 5.3.0 #21: 5.4.0 #22: 5.5.0 #23: 5.6.0 #24: 5.7.0	P. Pike	Lucent Technologies		GTS
03.50	**Transmission Planning Aspects of the Speech Service in the GSM Public Land Mobile Network (PLMN) System.**					
3.4.0	PU SMG11	#4: 3.2.2 #8: 3.3.0 #11: 3.4.0	P.Usai	ETSI		- -
4.3.0	PU SMG11	#8: 4.0.0 #9: 4.1.0 #15: 4.2.0 #24: 4.3.0	P.Usai	ETSI		300 540
5.0.3	PU SMG11	#17: 5.0.0 #20: 5.0.1 #24: 5.0.3	P.Usai	ETSI		300 903
03.54	**High Speed Circuit Switched Data (HSCSD) - Stage 2**					
5.2.0	FP SMG3	#23: 5.1.0 #24: 5.2.0				
03.60	**General Packet Radio Service (GPRS) Service description; Stage 2**					
5.2.0	FP SMG3	#23: 5.1.0 #24: 5.2.0				
03.63	**Packet Data on Signalling channels service (PDS) Service description, Stage 21**					
5.1.0	FP SMG3	#16: 5.0.0 #18: 5.1.0	J.Baumann	T-Mobil		GTS

(*) For Phase 1 : 1992 Release

GSM NUMBER AND TITLE CURRENT VERSION (*)	RESPONSIBLE PT SMG / STCs	HISTORY	RAPPORTEUR + COMPANY	ETS VERSION + NR
03.64	**Overall description of the GPRS radio interface; Stage 2**			
5.2.0	FP SMG3	#23: 5.1.0 #24: 5.2.0		
03.67	**Enhanced Multi-Level Precedence and Preemption Service (EMLPP) - Stage 2**			
5.1.1	PA SMG3	#16: 5.0.0 #20: 5.1.0	D. Münning Detecon	300 932
03.68	**Voice Group Call Service (VGCS) - Stage 2**			
5.4.0	PA SMG3	#16: 5.0.0 #18: 5.1.0 #20: 5.1.1 #21: 5.2.0 #23: 5.3.0 #24: 5.4.0	D. Münning Detecon	300 933
03.69	**Voice Broadcast service (VBS) - Stage 2**			
5.3.0	PA SMG3	#16: 5.0.0 #18: 5.1.0 #20: 5.1.1 #21: 5.2.0 #23: 5.3.0	D. Münning Detecon	300 934
03.70	**Routeing of Calls to/from Public Data Networks (PDN).**			
3.0.0	SA SMG4		--- none ---	- -
4.0.3	SA SMG4	#7: 4.0.0 #8: 4.0.1	--- none ---	300 541
5.0.0	SA SMG4	#20: 5.0.0	--- none ---	GTS
03.78	**CAMEL Phase 1 (stage 2)**			
5.3.0	SA SMG3	#21: 5.0.0 #22: 5.1.0 #23: 5.2.0 #24: 5.3.0		
03.79	**Support of Optimal Routing phase 1 (stage 2)**			
5.2.0	SA SMG3	#21: 5.0.0 #22: 5.1.0 #24: 5.2.0	I.Park Vodafone	
03.81	**Line Identification Supplementary Services - Stage 2.**			
4.7.0	PA SMG3	#7: 4.1.0 #9: 4.2.0 #10: 4.3.0 #11: 4.4.0 #12: 4.5.0 #19: 4.6.0 #24: 4.7.0	--- none ---	300 542
5.1.0	PA SMG3	#20: 5.0.0 #24: 5.1.0	--- none ---	GTS

(*) For Phase 1 : 1992 Release

GSM NUMBER AND TITLE CURRENT VERSION (*)	RESPONSIBLE PT SMG / STCs	HISTORY	RAPPORTEUR + COMPANY	ETS VERSION + NR
03.82	**Call Forwarding (CF) Supplementary Services - Stage 2.**			
4.8.1	PA SMG3	#7: 4.5.0 #8: 4.5.1 #10: 4.6.0 #12: 4.7.0 #18: 4.8.0	A.Poths MMO	300 543
5.0.0	PA SMG3	#20: 5.0.0	A.Poths MMO	GTS
3.2.1	PA SMG3		A.Poths MMO	- -
03.83	**Call Waiting (CW) and Call Hold (HOLD) Supplementary Services - Stage 2.**			
4.4.1	PA SMG3	#7: 4.3.0 #11: 4.3.2 #12: 4.4.0	I.Sharp Northern Telecom	300 544
5.0.0	PA SMG3	#20: 5.0.0	I.Sharp Northern Telecom	GTS
03.84	**Multi Party (MPTY) Supplementary Services - Stage 2.**			
4.4.1	PA SMG3	#7: 4.1.0 #9: 4.2.0 #10: 4.3.0 #12: 4.4.0	S.Habermann T-Mobil	300 545
5.0.0	PA SMG3	#20: 5.0.0	S.Habermann T-Mobil	GTS
03.85	**Closed user Group (CUG) Supplementary Services - Stage 2.**			
4.2.1	PA SMG3	#7: 4.0.0 #8: 4.1.0 #15: 4.2.0	S.Frew Vodafone	300 546
5.0.0	PA SMG3	#20: 5.0.0	S.Frew Vodafone	GTS
03.86	**Advice of Charge (AoC) Supplementary Services - Stage 2.**			
4.6.1	PA SMG3	#7: 4.1.0 #8: 4.2.0 #9: 4.3.0 #10: 4.4.0 #11: 4.5.0 #12: 4.6.0	S.Frew Vodafone	300 547
5.0.1	PA SMG3	#20: 5.0.0	S.Frew Vodafone	300 935
03.88	**Call Barring (CB) Supplementary Services - Stage 2.**			
4.6.1	PA SMG3	#7: 4.4.0 #10: 4.5.0 #12: 4.6.0	L.Letellier France Telecom	300 548
5.0.0	PA SMG3	#20: 5.0.0	L.Letellier France Telecom	GTS
3.2.1	PA SMG3		L.Letellier France Telecom	- -

(*) For Phase 1 : 1992 Release

GSM NUMBER AND TITLE / CURRENT VERSION (*)	RESPONSIBLE PT SMG / STCs	HISTORY	RAPPORTEUR + COMPANY		ETS VERSION + NR
03.90	**Unstructured Supplementary Service Data (USSD)**				
4.1.1	PA SMG3	#8: 4.0.0 #16: 4.1.0	S.Chotai	BT	300 549
5.0.0	PA SMG3	#20: 5.0.0	S.Chotai	BT	GTS
03.91	**Explicit Call Transfer (ECT) Supplementary Service - Stage 2**				
5.0.2	PA SMG3	#16: 5.0.0 #18: 5.0.1 #19: 5.0.2	S.Dzuban	Siemens	GTS
04.01	**Mobile Station - Base Station System (MS - BSS) Interface General Aspects and Principles.**				
3.0.1	FP SMG3		R.Thomas	France Telecom	- -
4.0.4	FP SMG3	#7: 4.0.1	R.Thomas	France Telecom	300 550
5.0.0	FP SMG3	#20: 5.0.0	R.Thomas	France Telecom	GTS
04.02	**GSM Public Land Mobile Network (PLMN) Access Reference Configuration.**				
3.0.2	FP SMG3 SMG2		P.Simmons	Nortel Matra Cellular	- -
4.0.4	FP SMG3 SMG2	#7: 4.0.1	P.Simmons	Nortel Matra Cellular	300 551
5.0.0	FP SMG3 SMG2	#18: 5.0.0	P. Simmons	Nortel Matra Cellular	GTS
04.03	**Mobile Station - Base Station System (MS - BSS) Interface Channel Structures and Access Capabilities.**				
3.0.3	PU SMG2		R.Thomas	France Telecom	- -
4.1.1	PU SMG2	#7: 4.0.1 #10: 4.1.0	R.Thomas	France Telecom	300 552
5.2.0	PU SMG2	#18: 5.0.0 #21: 5.1.0 #22: 5.2.0 #24: 5.3.0	R. Thomas	France Telecom	GTS
04.04	**Layer 1 - General Requirements.**				
4.0.4	PU SMG2	#7: 4.0.1	R.Thomas	France Telecom	300 553
5.1.0	PU SMG2	#20: 5.0.0 #24: 5.1.0	R.Thomas	France Telecom	300 936
3.3.4	PU SMG2		R.Thomas	France Telecom	v.3.3.4 300 078

(*) For Phase 1 : 1992 Release

GSM NUMBER AND TITLE CURRENT VERSION (*)	RESPONSIBLE PT SMG / STCs	HISTORY	RAPPORTEUR + COMPANY	ETS VERSION + NR
04.05 Data Link (DL) Layer General Aspects.				
4.0.3	PU SMG2	#7: 4.0.0	M.Sollner PKI	300 554
5.0.0	PU SMG2	#20: 5.0.0	M.Sollner PKI	300 937
3.1.5	PU SMG2		M.Sollner PKI	- -
04.06 Mobile Station - Base Stations System (MS - BSS) Interface Data Link (DL) Layer Specification.				
4.4.0	PU SMG2	#7: 4.2.0 #8: 4.3.0 #11: 4.4.0	M.Sollner PKI	300 555
5.1.0	PU SMG2	#20: 5.0.0 #21: 5.1.0	M.Sollner PKI	300 938
3.9.0	PU SMG2		M.Sollner PKI	v.3.9.0 300 021
04.07 Mobile Radio Interface Signalling Layer 3 - General Aspects				
3.3.3	FP SMG3		A.Bergmann T-Mobil	- -
4.3.1	FP SMG3	#7: 4.1.1 #10: 4.2.0 #12: 4.3.0	A.Bergmann T-Mobil	300 556
5.3.0	FP SMG3	#16: 5.0.0 #17: 5.1.0 #20: 5.1.1 #21: 5.2.0 #24: 5.3.0	A. Bergmann ETSI PT12	300 939
04.08 Mobile Radio Interface - Layer 3 Specification				
3.14.0	FP SMG3 SMG2		A.Bergmann T-Mobil France F.Courau Telecom R.Thomas	v.3.13.0 300 022-1
4.21.0	FP SMG3 SMG2	#7: 4.5.0 #8: 4.6.0 #9: 4.7.0 #10: 4.8.0 #11: 4.9.0 #12: 4.10.0 #14: 4.11.0 #15: 4.12.0 #16: 4.13.0 #17: 4.14.0 #18: 4.15.0 #19:4.16.0 #20: 4.17.0 #21: 4.18.0 #23: 4.20.1 #24: 4.21.0	A.Bergmann T-Mobil France F.Courau Telecom R.Thomas	300 557
5.8.0	FP SMG3 SMG2	#16: 5.0.0 #17: 5.1.0 #18: 5.2.0 #19: 5.3.0 #20: 5.4.0 #21: 5.5.0 #22: 5.6.0 #23: 5.7.0 #24: 5.8.0	A. Bergmann ETSI PT12 France F.Courau Telecom R.Thomas	300 940
DCS 3.1.0	FP SMG3 SMG2		--- none ---	v.3.1.0 31.12.91
EXT 3.0.0	FP SMG3 SMG2	#7: 3.0.0	n.a.	v.3.0.0 300 022-3

(*) For Phase 1 : 1992 Release

GSM NUMBER AND TITLE CURRENT VERSION (*)	RESPONSIBLE PT SMG / STCs	HISTORY	RAPPORTEUR + COMPANY		ETS VERSION + NR
04.10	**Mobile Radio Interface Layer 3 - Supplementary Services Specification - General Aspects**				
3.2.3	PA SMG3		I.Sharp	Northern Telecom	- -
4.10.1	PA SMG3	#7: 4.4.0 #8: 4.5.0 #9: 4.6.0 #10: 4.7.0 #11: 4.8.0 #13: 4.9.0 #14: 4.10.0	I.Sharp	Northern Telecom	300 558
5.0.1	PA SMG3	#20: 5.0.0	I.Sharp	Northern Telecom	300 941
04.11	**Point-to-Point (PP) Short Message Service (SMS) Support on Mobile Radio Interface**				
3.3.0	FP SMG3 SMG4	#5:3.3.0	P.Simmons	Nortel Matra Cellular v.3.3.0	300 023
4.10.0	FP SMG3 SMG4	#7: 4.3.0 #8: 4.4.0 #10: 4.5.0 #11: 4.6.0 #12: 4.7.0 #14: 4.8.0 #16: 4.9.0 #17: 4.10.0	P.Simmons	Nortel Matra Cellular	300 559
5.2.0	FP SMG3 SMG4	#16: 5.0.0 #17: 5.1.0 #20: 5.1.1 #21: 5.2.0	P.Simmons	Nortel Matra Cellular	300 942
04.12	**Short Message Service Cell Broadcast (SMSCB) Support on the Mobile Radio Interface**				
3.2.1	FP SMG3 SMG4		C.Pudney	Vodafone v.3.2.1	300 024
4.6.0	PU SMG2 SMG4	#7: 4.1.1 #10: 4.2.0 #11: 4.3.0 #12: 4.4.0 #16: 4.6.0	C.Pudney	Vodafone	300 560
5.0.2	PU SMG2 SMG4	#19: 5.0.0 #20: 5.0.1	C.Pudney	Vodafone	300 943
04.13	**Performance Requirements on Mobile Radio Interface**				
4.2.0	FP SMG3 SMG2	#10: 4.0.0 #14: 4.0.2 #15: 4.1.0 #16: 4.2.0	C.Pudney	Vodafone	300 561
5.1.0	FP SMG3 SMG2	#18: 5.0.0 #20: 5.1.0	C. Pudney	Vodafone	300 944
04.21	**Rate Adaption on the Mobile Station - Base Station System (MS-BSS) Interface.**				
3.4.0	SA SMG4		M.Valo	Nokia v.3.4.0	300 025
4.6.0	SA SMG4	#7: 4.2.1 #8: 4.3.0 #11: 4.4.0 #13: 4.5.0 #14: 4.6.0	M.Valo	Nokia	300 562
5.4.0	SA SMG4	#20: 5.0.0 #21: 5.1.0 #22: 5.2.0 #23: 5.3.0 #24: 5.4.0	M.Valo	Nokia	300 945

(*) For Phase 1 : 1992 Release

GSM NUMBER AND TITLE CURRENT VERSION (*)	RESPONSIBLE PT SMG / STCs	HISTORY	RAPPORTEUR + COMPANY	ETS VERSION + NR
04.22	**Radio Link Protocol (RLP) for Data and Telematic services on the (MS-BSS) Interface and the Base Station System-Mobile-Services Switching Centre (BSS-MSC) Interface**			
5.3.0	SA SMG4	#16: 5.0.0 #20: 5.0.1 #21: 5.1.0 #22: 5.2.0 #23: 5.3.0	N.Klehn Siemens	300 946
4.4.0	SA SMG4	#7: 4.2.2 #8: 4.3.0 #13: 4.4.0	N.Klehn Siemens	300 563
3.7.0	SA SMG4		N. Klehn Siemens	v.3.7.0 300 026
04.63	**Packet Data on Signalling channels Service (PDS) Service Description, Stage 3**			
5.0.0	FP SMG3	#18: 5.0.0	Nazemann T-Mobil	GTS
04.64	**Mobile Station - Serving GPRS Support Node (MS-SGSN) Logical Link Control (LLC) Layer Specification**			
5.1.0	FP SMG3	#24: 5.1.0		
04.65	**Mobile Station (MS) - Serving GPRS Support Node (SGSN); Subnetwork Dependent Convergence Protocol (SNDCP)**			
5.1.0	FP SMG3	#24: 5.1.0		
04.67	**Enhanced Multi-Level Precedence and Pre-emption service (eMLPP) - Stage 3**			
5.0.1	PA SMG3	#20: 5.0.0	D.Munning Detecon	300 947
04.68	**Group Call Control (GCC) Protocol**			
5.0.2	PA SMG3	#18: 5.0.0 #20: 5.0.1	A.Bergmann ETSI PT12	300 948
04.69	**Broadcast Call Control (BCC) protocol**			
5.0.1	PA SMG3	#20: 5.0.0	A.Bergmann ETSI PT12	300 949
04.80	**Mobile Radio Interface Layer 3 - Supplementary Services Specification Formats and Coding**			
3.2.0	PA SMG3		--- none ---	v.3.2.0 300 027
4.11.1	PA SMG3	#7: 4.7.0 #8: 4.7.1 #9: 4.9.0 #12: 4.9.1 #16: 4.10.0 #17: 4.11.0	--- none ---	300 564
5.1.0	PA SMG3	#18: 5.0.0 #20: 5.0.1 #24: 5.1.0	--- none ---	300 950

(*) For Phase 1 : 1992 Release

GSM NUMBER AND TITLE CURRENT VERSION (*)	RESPONSIBLE PT SMG / STCs	HISTORY	RAPPORTEUR + COMPANY	ETS VERSION + NR
04.81	**Line Identification Supplementary Services - Stage 3.**			
4.4.1	PA SMG3	#7: 4.2.0 #10: 4.3.0 #12: 4.4.0	--- none ---	300 565
5.0.1	PA SMG3	#20: 5.0.0	--- none ---	300 951
04.82	**Call Forwarding (CF) Supplementary Services - Stage 3.**			
4.9.1	PA SMG3	#7: 4.6.0 #11: 4.7.0 #12: 4.8.0 #17: 4.9.0	A.Poths MMO	300 566
5.0.1	PA SMG3	#20: 5.0.0	A.Poths MMO	300 952
3.1.3	PA SMG3		A.Poths MMO	v.3.1.3 300 028
04.83	**Call Waiting (CW) and Call Hold (HOLD) Supplementary Services - Stage 3.**			
4.6.1	PA SMG3	#7: 4.4.0 #9: 4.5.0 #17: 4.6.0	I.Sharp Northern Telecom	300 567
5.0.1	PA SMG3	#20: 5.0.0	I.Sharp Northern Telecom	300 953
04.84	**Multi Party (MPTY) Supplementary Services - Stage 3.**			
4.3.2	PA SMG3	#7: 4.2.0 #9: 4.3.0	S.Habermann T-Mobil	300 568
5.0.1	PA SMG3	#20: 5.0.0	S.Habermann T-Mobil	300 954
04.85	**Closed User Group (CUG) Supplementary Services - Stage 3.**			
4.1.1	PA SMG3	#7: 4.0.0 #18: 4.1.0	S.Frew Vodafone	300 569
5.0.0	PA SMG3	#20: 5.0.0	S.Frew Vodafone	GTS
04.86	**Advice of Charge (AoC) Supplementary Services - Stage 3.**			
4.5.2	PA SMG3	#7: 4.2.0 #8: 4.4.0 #11: 4.5.0	S.Frew Vodafone	300 570
5.0.1	PA SMG3	#20: 5.0.0	S.Frew Vodafone	300 955

(*) For Phase 1 : 1992 Release

GSM NUMBER AND TITLE / CURRENT VERSION (*)	RESPONSIBLE PT SMG / STCs	HISTORY	RAPPORTEUR + COMPANY	ETS VERSION + NR
04.88 Call Barring (CB) Supplementary Services - Stage 3.				
4.7.1	PA SMG3	#7: 4.6.0 #17: 4.7.0	L.Letellier France Telecom	300 571
5.1.0	PA SMG3	#20: 5.0.0 #24: 5.1.0	L.Letellier France Telecom	300 956
3.1.3	PA SMG3		L. Letellier France Telecom	v.3.1.3 300 029
04.90 Unstructured Supplementary Service Data (USSD)				
4.1.1	PA SMG3	#8: 4.0.0 #12: 4.1.0	J.Bruss Ericsson	300 572
5.0.1	PA SMG3	#20: 5.0.0	J.Bruss Ericsson	300 957
04.91 Explicit Call Transfer (ECT) Supplementary Service - Stage 3				
5.1.1	PA SMG3	#16: 5.0.0 #17: 5.1.0 #20: 5.1.1	S. Dzuban Siemens	300 958
05.01 Physical Layer on the Radio Path (General Description)				
3.3.2	PU SMG2		N.Andersen Tele Danmark	- -
4.6.0	PU SMG2	#7: 4.1.0 #8: 4.2.0 #10: 4.3.0 #13: 4.4.0 #14: 4.5.0 #16: 4.6.0	N.Andersen Tele Danmark	300 573
5.3.0	PU SMG2	#18: 5.0.0 #20: 5.1.0 #21: 5.2.0 #22: 5.3.0	N.Andersen Tele Danmark	GTS
DCS 3.0.0	PU SMG2		--- none ---	- -
6.0.0	PU SMG2	#24: 6.0.0	N.Andersen Tele Danmark	
05.02 Multiplexing and Multiple Access on the Radio Path				
3.6.1	PU SMG2	#15: 3.7.0 #16: 3.8.0	D.Freeman Motorola	v.3.7.0 300 030
4.9.0	PU SMG2	#7: 4.3.0 #9: 4.4.0 #15: 4.5.0 #16: 4.6.0 #17: 4.7.0 #20: 4.8.0 #22: 4.9.0	D.Freeman Motorola	300 574
5.4.0	PU SMG2	#18: 5.0.0 #19: 5.1.0 #20: 5.2.0 #21: 5.3.0 #23: 5.4.0	D. Freeman Motorola	300 908
6.0.0	PU SMG2	#24: 6.0.0	D. Freeman Motorola	

(*) For Phase 1 : 1992 Release

GSM NUMBER AND TITLE CURRENT VERSION (*)	RESPONSIBLE PT SMG / STCs	HISTORY	RAPPORTEUR + COMPANY	ETS VERSION + NR
05.03 Channel Coding				
3.6.1	PU SMG2	#12: 3.6.1	--- none ---	v.3.6.1 300 031/A1
4.5.0	PU SMG2	#7: 4.1.0 #13: 4.2.0 #15: 4.3.0 #21: 4.4.0 #22: 4.5.0	--- none ---	300 575
5.4.0	PU SMG2	#17: 5.0.0 #18: 5.1.0 #19: 5.2.0 #20: 5.2.1 #21: 5.3.0 #23: 5.4.0	--- none ---	300 909
05.04 Modulation				
3.1.2	PU SMG2		M.Reiner AEG Mobile Com.	v.3.1.2 300 032
4.0.3	PU SMG2	#7: 4.0.0	M.Reiner AEG Mobile Communication	300 576
5.0.1	PU SMG2	#20: 5.0.0	M.Reiner AEG Mobile Communication	300 959
05.05 Radio Transmission and Reception				
3.13.0	PU SMG2	#4: 3.14.0 #6b: 3.15.0 #8: 3.16.0	J.P.Charles France Télécom	v.3.16.0 300 033-1/A1
4.21.0	PU SMG2	#7: 4.6.0 #8: 4.7.0 #9: 4.8.0 #10: 4.9.0 #13: 4.10.0 #14: 4.11.0 #16: 4.13.0 #17: 4.14.0 #18: 4.15.0 #19: 4.16.0 #20: 4.17.0 #21: 4.18.0 #22: 4.19.0 #23: 4.20.0 #24: 4.21.0	J.P.Charles France Telecom	300 577
5.7.0	PU SMG2	#17: 5.0.0 #18: 5.1.0 #19: 5.2.0 #20: 5.3.0 #21: 5.4.0 #22: 5.5.0 #23: 5.6.0 #24: 5.7.0	J.P.Charles France Telecom	300 910
DCS 3.1.0	PU SMG2	#4: 3.2.0 #8: 3.3.0	--- none ---	v.3.3.0 31.12.91
6.0.0	PU SMG2	#24: 6.0.0	J.P.Charles France Telecom	

(*) For Phase 1 : 1992 Release

GSM NUMBER AND TITLE / CURRENT VERSION (*)	RESPONSIBLE PT SMG / STCs	HISTORY	RAPPORTEUR + COMPANY		ETS VERSION + NR	
05.08 Radio Subsystem Link Control						
3.7.0	PU SMG2	#16: 3.8.0	P.White	Vodafone	v.3.7.0	300 034-1
4.21.0	PU SMG2	#7: 4.6.0 #8: 4.7.0 #9: 4.8.0 #10: 4.9.0 #11: 4.10.0 #12: 4.11.0 #13: 4.12.0 #14: 4.13.0 #15: 4.14.0 #16: 4.15.0 #17: 4.16.0 #18: 4.17.0 #19: 4.18.0 #19: 4.18.1 #21: 4.18.2 #22: 4.19.0 #23: 4.20.0 #24: 4.21.0	P.White	Vodafone		300 578
5.6.0	PU SMG2	#18: 5.0.0 #19: 5.1.0 #20: 5.2.0 #21: 5.3.0 #22: 5.4.0 #23: 5.5.0 #24: 5.6.0	P. White	Vodafone		300 911
DCS 3.0.0	PU SMG2		--- none ---		v.3.0.0	31.12.91
6.0.0	PU SMG2	#24: 6.0.0	P. White	Vodafone		
05.10 Radio Subsystem Synchronization						
3.5.1	PU SMG2	#4: 3.5.1	H.Benn	Motorola	v.3.5.1	300 035
4.9.0	PU SMG2	#7: 4.2.0 #8: 4.3.0 #9: 4.4.0 #13: 4.5.0 #14: 4.6.0 #16: 4.7.0 #17: 4.8.0 #18: 4.9.0	H.Benn	Motorola		300 579
5.2.0	PU SMG2	#18: 5.0.0 #20: 5.1.0 #23: 5.2.0	H. Benn	Motorola		300 912
05.22 Radio link management in hierarchical networks						
5.0.0	PU SMG2	#20: 5.0.0				ETR 355
05.50 Background for RF Requirements.						
4.2.0	PU SMG2	#8: 4.0.0 #13: 4.1.0 #17: 4.2.0	--- none ---			TC-TR
5.1.1	PU SMG2	#20: 5.0.0 #21: 5.1.0 #23: 5.1.1	--- none ---			ETR 356
6.0.0	PU SMG2	#24: 6.0.0	--- none ---			
05.90 GSM Electro Magnetic Compatibility (EMC) Considerations.						
4.3.0	PU SMG2	#7: 4.1.0 #8: 4.2.0 #15: 4.3.0	--- none ---			ETR 108
5.0.0	PU SMG2	#20: 5.0.0	--- none ---			ETR 357

(*) For Phase 1 : 1992 Release

GSM NUMBER AND TITLE CURRENT VERSION (*)	RESPONSIBLE PT SMG / STCs	HISTORY	RAPPORTEUR + COMPANY		ETS VERSION + NR
06.01	**Full Rate Speech Processing Functions.**				
4.0.6	PU SMG11	#7: 4.0.2 #23: 4.0.6	P.Usai	CSELT	300 580-1
5.1.0	PU SMG11	#20: 5.0.0 #23: 5.1.0	P.Usai	CSELT	300 960
3.0.0	PU SMG11		P. Usai	CSELT	- -
06.02	**Half Rate Speech Processing Functions.**				
4.0.2	PU SMG11	#13: 4.0.0	S.Aftelak	Motorola	300 581-1
5.0.1	PU SMG11	#20: 5.0.0	S.Aftelak	Motorola	300 966
06.06	**Digital Telecommunications System Half Rate Speech - Part 7: ANSI-C Code for GSM Half Rate Speech Codec**				
4.2.0	PU SMG11	#13: 4.0.0 #16: 4.0.2 #17: 4.1.0 #23: 4.2.0	S.Aftelak	Motorola	300 581-7
5.1.0	PU SMG11	#20: 5.0.0 #23: 5.1.0	S.Aftelak	Motorola	300 967
06.07	**Digital Cellular Telecommunications Systems Half Rate Speech - Part 8: Test Sequence for GSM Half Rate Speech Codec**				
4.2.0	PU SMG11	#13: 4.0.0 #16: 4.0.2 #20: 4.1.0 #23: 4.2.0	S.Aftelak	Motorola	300 581-8
5.2.0	PU SMG11	#20: 5.0.0 #22: 5.1.0 #23: 5.2.0	S.Aftelak	Motorola	300 968
06.08	**Digital Cellular Telecommunications System; Half Rate Speech; Performance Characterization of the GSM half rate speech codec**				
4.0.0	PU SMG11	#16: 4.0.0	T.Salem	T-Mobil	ETR 229
5.0.0	PU SMG11	#20: 5.0.0	T.Salem	T-Mobil	ETR 358
06.10	**Full Rate Speech Transcoding**				
3.2.0	PU SMG11		D.Lorent	Philips Semi Conductors	v.3.2.0 300 036
4.1.0	PU SMG11	#7: 4.0.0 #23: 4.1.0	D.Lorenz	Philips Semi Conductors	300 580-2
5.1.0	PU SMG11	#20: 5.0.0 #23: 5.1.0	D.Lorenz	Philips Semi Conductors	300 961

(*) For Phase 1 : 1992 Release

GSM NUMBER AND TITLE CURRENT VERSION (*)	RESPONSIBLE PT SMG / STCs	HISTORY	RAPPORTEUR + COMPANY		ETS VERSION + NR	
06.11	**Substitution and Muting of Lost Frames for Full Rate Speech Channels.**					
3.0.1	PU SMG11		W.Navarro	Matra	v.3.0.1	300 037
4.0.5	PU SMG11	#7: 4.0.1 #23: 4.0.5	W.Navarro	Matra		300 580-3
5.0.1	PU SMG11	#20: 5.0.0 #23: 5.0.1	W.Navarro	Matra		300 962
06.12	**Comfort Noise Aspects for Full Rate Speech Traffic Channels**					
3.0.1	PU SMG11		D.Sereno	CSELT	v.3.0.1	300 038
4.0.4	PU SMG11	#7: 4.0.1	D.Sereno	CSELT		300 580-4
5.0.1	PU SMG11	#20: 5.0.0	D.Sereno	CSELT		300 963
06.20	**Half Rate Speech Transcoding.**					
4.3.0	PU SMG11	#13: 4.0.0 #14: 4.1.0 #17: 4.3.0	S.Aftelak	Motorola		300 581-2
5.1.0	PU SMG11	#20: 5.0.0 #22: 5.1.0	S.Aftelak	Motorola		300 969
06.21	**Substitution and Muting of Lost Frames for Half Rate Speech Traffic Channels.**					
4.0.2	PU SMG11	#13: 4.0.0	S.Aftelak	Motorola		300 581-3
5.0.1	PU SMG11	#20: 5.0.0	S.Aftelak	Motorola		300 970
06.22	**Comfort Noise Aspects for Half Rate Speech Traffic Channels.**					
4.1.1	PU SMG11	#13: 4.0.0 #15: 4.1.0	S.Aftelak	Motorola		300 581-4
5.1.0	PU SMG11	#20: 5.0.0 #22: 5.1.0	S.Aftelak	Motorola		300 971
06.31	**Discontinuous Transmission (DTX) for Full Rate Speech Traffic Channels**					
3.1.0	PU SMG11		L.Vetrano	Italtel	v.3.1.0	300 039
4.0.5	PU SMG11	#7: 4.0.1 #23: 4.0.5	L.Vetrano	Italtel		300 580-5
5.0.1	PU SMG11	#20: 5.0.0 #23: 5.0.1	L.Vetrano	Italtel		300 964

(*) For Phase 1 : 1992 Release

GSM NUMBER AND TITLE CURRENT VERSION (*)	RESPONSIBLE PT SMG / STCs	HISTORY	RAPPORTEUR + COMPANY		ETS VERSION + NR
06.32	**Voice Activity Detection (VAD).**				
3.0.0	PU SMG11		P.Barrett	BT	v.3.0.0 300 040
4.3.0	PU SMG11	#7: 4.0.1 #9: 4.0.3 #13: 4.1.0 #17: 4.2.0 #20: 4.2.1 #23: 4.3.0	P.Barrett	BT	300 580-6
5.0.2	PU SMG11	#20: 5.0.0 #23: 5.0.2	P.Barrett	BT	300 965
06.41	**Discontinuous Transmission (DTX) for Half Rate Speech Traffic Channels.**				
4.0.2	PU SMG11	#13: 4.0.0	L.Vetrano	Italtel	300 581-5
5.1.0	PU SMG11	#20: 5.0.0 #23: 5.1.0	L.Vetrano	Italtel	300 972
06.42	**Voice Activity Detection (VAD) for Half Rate Speech Traffic Channels.**				
4.1.1	PU SMG11	#13: 4.0.0 #15: 4.1.0	P.Barrett	BT	300 581-6
5.0.1	PU SMG11	#20: 5.0.0 #22: 5.0.1	P.Barrett	BT	300 973
06.51	**Enhanced full rate speech processing functions: General description**				
4.0.0	PU SMG11	#22: 4.0.0	K.Jarvinen	Nokia	301 243
5.1.2	PU SMG11	#17: 5.0.0 #19: 5.1.0 #20: 5.1.1	K.Jarvinen	Nokia	300 723
06.53	**ANSI-C code for the enhanced full rate speech codec**				
4.0.1	PU SMG11	#23: 4.0.1	K.Jarvinen	Nokia	301 244
5.1.3	PU SMG11	#17: 5.0.0 #19: 5.1.0 #20: 5.1.1 #23: 5.1.3	K.Jarvinen	Nokia	300 724
06.54	**Test sequences for the GSM Enhanced Full Rate (EFR)**				
4.0.0	PU SMG11	#22: 4.0.0	K.Jarvinen	Nokia	301 250
5.1.0	PU SMG11	#20: 2.0.0 #22: 5.1.0	K.Jarvinen	Nokia	300 725
06.55	**Performance characterisation of the GSM EFR Speech Codec**				
4.0.0	PU SMG11	#22: 4.0.0	T.Salem	T-Mobil	TR 010 085
5.0.0	PU SMG11	#19: 5.0.0	T.Salem	T-Mobil	ETR 305

(*) For Phase 1 : 1992 Release

GSM NUMBER AND TITLE CURRENT VERSION (*)	RESPONSIBLE PT SMG / STCs	HISTORY	RAPPORTEUR + COMPANY	ETS VERSION + NR
06.60 Enhanced full rate speech transcoding				
4.0.1	PU SMG11	#23: 4.0.1	K.Jarvinen Nokia	301 245
5.1.3	PU SMG11	#17: 5.0.0 #19:5.1.0 #20: 5.1.1 #23: 5.1.3	K.Jarvinen Nokia	300 726
06.61 Substitution and muting of lost frames for encanced full rate speech traffic channels				
4.0.0	PU SMG11	#22: 4.0.0	K.Jarvinen Nokia	301 246
5.1.2	PU SMG11	#17: 5.0.0 #19: 5.1.0 #20: 5.1.1	K.Jarvinen Nokia	300 727
06.62 Comfort noise aspects for Enhanced Full Rate (EFR) speech traffic channels				
4.0.1	PU SMG11	#23: 4.0.1	K.Jarvinen Nokia	301 247
5.1.3	PU SMG11	#17: 5.0.0 #19: 5.1.0 #20: 5.1.1 #23: 5.1.2	K.Jarvinen Nokia	300 728
06.81 Discontinuous Transmission (DTX) for encanced full rate speech traffic channels				
4.0.0	PU SMG11	#22: 4.0.0	K.Jarvinen Nokia	301 248
5.1.2	PU SMG11	#17: 5.0.0 #19: 5.1.0 #20: 5.1.1 #22: 5.1.2	K.Jarvinen Nokia	300 729
06.82 Voice Activity Detection (VAD) for encanced full rate speech traffic channels				
4.0.0	PU SMG11	#22: 4.0.0	K.Jarvinen Nokia	301 249
5.0.3	PU SMG11	#17: 5.0.0 #20: 5.0.2 #22: 5.0.3	K.Jarvinen Nokia	300 730
07.01 General on Terminal Adaptation Functions (TAF) for Mobile Stations (MS)				
4.10.0	SA SMG4	#7: 4.5.0 #8: 4.6.0 #9: 4.6.1 #10: 4.7.0 #13: 4.8.0 #15: 4.9.0 #16: 4.10.0	J.Varaldi Alcatel	300 582
5.7.0	SA SMG4	#16: 5.0.0 #17: 5.0.1 #18: 5.1.0 #19: 5.2.0 #20: 5.3.0 #21: 5.4.0 #22: 5.5.0 #23: 5.6.0 #24: 5.7.0	J.Varaldi Alcatel	300 913
3.13.0	SA SMG4	#2: 3.14.0	J.Varaldi Alcatel	v.3.14.0 300 041

(*) For Phase 1 : 1992 Release

GSM NUMBER AND TITLE CURRENT VERSION (*)	RESPONSIBLE PT SMG / STCs	HISTORY	RAPPORTEUR + COMPANY		ETS VERSION + NR	
07.02	**Terminal Adaptation Functions (TAF) for Services Using Asynchronous Bearer Capabilities**					
3.8.0	SA SMG4	#2: 3.8.0	P.Bertin	France Telecom	v.3.8.0	300 042
4.5.1	SA SMG4	#7: 4.4.0 #9: 4.4.2 #11: 4.5.0	P.Bertin	France Telecom		300 583
5.5.0	SA SMG4	#16: 5.0.0 #18: 5.1.0 #20: 5.1.1 #21: 5.2.0 #22: 5.3.0 #23: 5.4.0 #24: 5.5.0	P.Bertin	France Telecom		300 914
07.03	**Terminal Adaptation Functions (TAF) for Services Using Synchronous Bearer Capabilities**					
3.4.0	SA SMG4	#5: 3.4.0	P.Edlund	Ericsson	v.3.4.0	300 043
4.5.1	SA SMG4	#7: 4.4.0 #9: 4.5.0	P.Edlund	Ericsson		300 584
5.4.0	SA SMG4	#18: 5.0.0 #20: 5.0.1 #21: 5.1.0 #22: 5.2.0 #23: 5.3.0 #24: 5.4.0	P. Edlund	Ericsson		300 915
07.05	**Use of Data Terminal Equipment - Data Circuit Terminating Equipment (DTE-DCE) Interface for Short Message Service (SMS) and Cell Broadcast Services (CBS).**					
4.8.1	SA SMG4	#7: 4.2.1 #8: 4.3.0 #12: 4.4.0 #16: 4.5.0 #17: 4.6.0 #18: 4.7.0 #20: 4.8.0	I.Harris	Vodafone		300 585
5.5.0	SA SMG4	#19: 5.0.0 #20: 5.1.0 #21: 5.2.0 #22: 5.3.0 #23: 5.4.0 #24: 5.5.0	I.Harris	Vodafone		GTS
07.06	**Use of the V Series Data Terminal Equipment - Data Circuit Terminating Equipment (DTE-DCE) Interface at the Mobile Station (MS) for Mobile Termination (MT) configuration.**					
4.2.0	SA SMG4	#7: 4.1.0 #13: 4.2.0 #16: WITHDRAWN	I.Harris	Vodafone		300 586
07.07	**Digital cellular telecommunications System (Phase 2) AT Command set for GSM Mobile Equipment (ME)**					
4.2.0	SA SMG4	#16: 4.0.0 #18: 4.1.0 #24: 4.2.0	P.Heinonen	Nokia		300 642
5.5.0	SA SMG4	#19: 5.0.0 #20: 5.1.0 #21: 5.2.0 #22: 5.3.0 #23: 5.4.0 #24: 5.5.0	P.Heinonen	Nokia		300 916
07.08	**GSM Application Programming Interface**					
5.2.0		#20: 5.0.0 #21: 5.1.0 #24: 5.2.0				300 917
07.60	**General Packet Radio Service (GPRS); Mobile Station (MS) supporting GPRS**					
5.1.0		#24: 5.1.0				

(*) For Phase 1 : 1992 Release

GSM NUMBER AND TITLE CURRENT VERSION (*)	RESPONSIBLE PT SMG / STCs	HISTORY	RAPPORTEUR + COMPANY	ETS VERSION + NR
08.01 Base Station System - Mobile Services Switching Centre (BSS-MSC) Interface General Aspects.				
4.0.3	SA SMG3	#7: 4.0.0	R.Davies Motorola	300 587
5.0.0	SA SMG3	#20: 5.0.0	R.Davies Motorola	GTS
3.0.1	SA SMG3		R.Davies Motorola	- -
08.02 Base Station System - Mobile Services Switching Centre (BSS-MSC) Interface - Interface Principles.				
4.2.0	SA SMG3	#7: 4.0.0 #10: 4.1.0 #13: 4.2.0	R.Davies Motorola	300 587
5.1.0	SA SMG3	#20: 5.0.0 #21: 5.1.0	R.Davies Motorola	GTS
3.3.1	SA SMG3		R.Davies Motorola	- -
08.04 Base Station System - Mobile Services Switching Centre (BSS-MSC) Interface Layer 1 Specification.				
3.0.3	PU SMG2		R.Davies Motorola	- -
4.0.3	PU SMG2	#7: 4.0.0	R.Davies Motorola	300 588
5.0.0	PU SMG2	#20: 5.0.0	R.Davies Motorola	GTS
08.06 Signalling Transport Mechanism Specification for the Base Station System - Mobile Services Switching Centre (BSS-MSC) Interface.				
3.5.2	PU SMG2		R.Davies Motorola	- -
4.5.0	PU SMG2	#7: 4.1.0 #8: 4.2.0 #9: 4.3.0 #10: 4.4.0	R.Davies Motorola	300 589
5.1.0	PU SMG2	#17: 5.0.0 #18: 5.1.0	R.Davies Motorola	GTS
08.08 BSS-MSC Layer 3 Specification				
3.10.1	PU SMG2		R.Davies Motorola	- -
EXT 3.0.0	PU SMG2	#7: 3.0.0	n.a.	
4.12.0	PU SMG2	#7: 4.4.0 #8: 4.5.0 #9: 4.6.0 #10: 4.7.0 #13: 4.8.0 #15: 4.9.0 #16: 4.10.0 #17: 4.11.0 #23: 4.12.0	R.Davies Motorola	300 590
5.8.0	PU SMG2	#16: 5.0.0 #17: 5.1.0 #18: 5.2.0 #19: 5.3.0 #20: 5.4.0 #21: 5.5.0 #23: 5.7.0 #24: 5.8.0	R.Davies Motorola	GTS

(*) For Phase 1 : 1992 Release

GSM NUMBER AND TITLE CURRENT VERSION (*)	RESPONSIBLE PT SMG / STCs	HISTORY	RAPPORTEUR + COMPANY		ETS VERSION + NR
08.20	**Rate Adaptation on the Base Station System - Mobile Service Switching Centre (BSS-MSC) Interface.**				
4.2.3	SA SMG4	#7: 4.2.1 #13: 4.2.3	P.Bertin	France Telecom	300 591
5.3.0	SA SMG4	#20: 5.0.0 #21: 5.1.0 #22: 5.2.0 #24: 5.3.0	P.Bertin	France Telecom	GTS
3.1.2	SA SMG4		P.Bertin	France Telecom	- -
08.51	**Base Station Controller - Base Tranceiver Station (BSC-BTS) Interface General Aspects.**				
4.1.0	PU SMG2	#7: 4.0.1 #13: 4.1.0	E.Lycksell	Televerket	300 592
5.0.0	PU SMG2	#20: 5.0.0	E.Lycksell	Televerket	GTS
3.0.2	PU SMG2		E.Lycksell	Televerket	- -
08.52	**Base Station Controller - Base Tranceiver Station (BSC-BTS) Interface - Interface Principles.**				
4.2.0	PU SMG2	#7: 4.0.1 #13: 4.1.0	E.Lycksell	Televerket	300 593
5.0.0	PU SMG2	#20: 5.0.0	E.Lycksell	Televerket	GTS
3.0.2	PU SMG2		E.Lycksell	Televerket	- -
08.54	**Base Station Controler - Base Transceiver Station (BSC-BTS) Interface Layer 1 Structure of Physical Circuits**				
5.0.0	PU SMG2	#16: 5.0.0	E. Lycsell	Televerket	GTS
4.1.0	PU SMG2	#7: 4.0.1 #13: 4.1.0	E.Lycksell	Televerket	300 594
3.0.1	PU SMG2		E.Lycksell	Televerket	- -
08.56	**Base Station Controller - Base Tranceiver Station (BSC-BTS) Interface Layer 2 Specification.**				
4.0.2	PU SMG2	#8: 4.0.0	---none---		300 595
5.0.0	PU SMG2	#20: 5.0.0	---none---		GTS
3.1.1	PU SMG2		H.Andersen	Ericsson Telecom	- -

(*) For Phase 1 : 1992 Release

GSM NUMBER AND TITLE / CURRENT VERSION (*)	RESPONSIBLE PT SMG / STCs	HISTORY	RAPPORTEUR + COMPANY		ETS VERSION + NR
08.58 Base Station Controler - Base Transceiver Station (BCS-BTS) Interface Layer 3 Specification					
5.6.0	PU SMG2	#16: 5.0.0 #17: 5.1.0 #19: 5.2.0 #21: 5.3.0 #22: 5.4.0 #23: 5.5.0 #24: 5.6.0	E. Lycsell	Televerket	GTS
EXT 3.0.0	PU SMG2	#7: 3.0.0	n.a.		
4.9.0	PU SMG2	#7: 4.3.0 #8: 4.4.0 #9: 4.5.0 #10: 4.6.0 #13: 4.7.0 #15: 4.8.0 #16: 4.9.0	E.Lycksell	Televerket	300 596
3.6.0	PU SMG2	#10: 3.6.0	E.Lycksell	Televerket	- -
DCS 3.0.0	PU SMG2		--- none ---		- -
08.59 BSC-BTS O&M Signalling Transport					
3.1.0	MS SMG6 SMG2		--- none ---		- -
08.60 Inband Control of Remote Transcoders and Rate Adaptors					
3.3.1	PU SMG2		L.Cruchant	Alcatel MC	- -
5.1.0	PU SMG2	#17: 5.0.0 #19: 5.0.1 #20: 5.0.2 #22: 5.1.0	A. Katle	Norwegian Telecom Mobile	300 737
4.4.0	PU SMG2	#7: 4.1.0 #13: 4.2.0 #22: 4.3.0 #23: 4.4.0	L. Cruchant	Alcatel	300 597
08.61 Inband Control of Remote Transcoder and Rate Adaptors;(Half Rate)					
4.0.2	PU SMG2 SMG3	#13: 4.0.0	P.Jacob	Siemens	300 598
5.0.1	PU SMG2 SMG3	#20: 5.0.0	P.Jacob	Siemens	300 979
09.01 General Network Interworking Scenarios					
3.0.1	SA SMG3		--- none ---		- -
4.0.1	SA SMG3	#8: 4.0.0 #9: 4.0.1	--- none ---		ETR 109
5.0.0	SA SMG3	#20: 5.0.0	--- none ---		ETR 359

(*) For Phase 1 : 1992 Release

GSM NUMBER AND TITLE CURRENT VERSION (*)	RESPONSIBLE PT SMG / STCs	HISTORY	RAPPORTEUR + COMPANY	ETS VERSION + NR
09.02	**Mobile Application Part (MAP) Specification**			
5.8.0	SA SMG3 SPS2	#16: 5.0.0 #17: 5.1.0 #18: 5.2.0 #19: 5.3.0 #20: 5.4.0 #21: 5.5.0 #22: 5.6.0 #23: 5.7.0 #24: 5.8.0	JMEG	300 974
6.0.0	SA SMG3 SPS2	#24: 6.0.0	JMEG	
4.18.0	SA SMG3 SPS2	#7: 4.4.0 #8: 4.5.0 #9: 4.6.0 #10: 4.7.0 #11: 4.8.0 #12: 4.9.0 #13: 4.10.0 #14: 4.11.0 #16: 4.12.0 #17: 4.13.0 #19: 4.14.0 #20: 4.15.0 #21: 4.16.0 #22: 4.17.0 #23: 4.18.0	JMEG	300 599
3.8.0	SA SMG3 SPS2	#9: 3.9.0 #12: 3.10.0 #14: 3.11.0	JMEG	v.3.11.0 300 044-1
DCS 3.0.0	SA SMG3 SPS2		JMEG	v.3.0.0 31.12.91
09.03	**Requirements on Interworking between the ISDN or PSTN and the PLMN**			
3.0.1	SA SPS1 SMG3 SMG4		--- none ---	- -
4.0.3	SA SMG3 SMG4 SPS1	#8: 4.0.0 #9: 4.0.1	--- none ---	300 600
5.0.0	SA SMG3 SMG4 SPS1	#20: 5.0.0	--- none ---	GTS
09.04	**Interworking between the PLMN and the CSPDN**			
3.0.1	SA SMG4		--- none ---	- -
4.0.2	SA SMG4	#7: 4.0.0 #8: 4.0.1 #9: 4.0.2	--- none ---	300 601
5.0.0	SA SMG4	#20: 5.0.0	--- none ---	GTS
09.05	**Interworking between the PLMN and the PSPDN for PAD Access**			
3.2.2	SA SMG4		--- none ---	- -
4.4.2	SA SMG4	#7: 4.3.0 #8: 4.4.0 #9: 4.4.1	--- none ---	300 602
5.0.0	SA SMG4	#20: 5.0.0	--- none ---	GTS
09.06	**Interworking between a Public Land Mobile Network (PLMN) and a Packet Switched Public Data Network/Integrated**			
5.0.2	SA SMG4	#19: 5.0.0 #20: 5.0.1	A.Braun Alcatel SEL	300 975
4.5.0	SA SMG4	#7: 4.3.0 #9: 4.4.0 #12: 4.5.0	A.Braun Alcatel SEL	300 603

(*) For Phase 1 : 1992 Release

GSM NUMBER AND TITLE / CURRENT VERSION (*)	RESPONSIBLE PT SMG / STCs	HISTORY	RAPPORTEUR + COMPANY		ETS VERSION + NR
09.07	**General Requirements on Interworking between the Public Land Mobile Network (PLMN) and the Intergrated Services Digital Network (ISDN) or Public Switched Telephone Network (PSTN)**				
3.7.1	SA SMG4 SMG3	#5: 3.8.0 #9: 3.9.0 #14: 3.10.0	N.Klehn	Siemens	- -
4.12.1	SA SMG4 SMG3	#7: 4.4.0 #8: 4.5.0 #9: 4.6.0 #10: 4.7.0 #13: 4.8.0 #14: 4.9.0 #16: 4.10.0 #18: 4.11.0 #20: 4.12.0	N.Klehn	Siemens	300 604
5.6.0	SA SMG4 SMG3	#16: 5.0.0 #17: 5.0.1 #18: 5.1.0 #19: 5.2.0 #20: 5.2.1 #21: 5.3.0 #22: 5.4.0 #23: 5.5.0 #24: 5.6.0	N.Klehn	Siemens	300 976
09.08	**Application of the Base Station System Application Part (BSSAP) on the E-Interface.**				
4.1.1	PU SMG2 SMG3	#9: 4.0.0 #13: 4.1.0	R.Bodin	Ericsson	300 626
5.1.0	FP SMG3	#20: 5.0.0 #21: 5.1.0	R.Bodin	Ericsson	GTS
09.09	**Detailed Signalling Interworking within the PLMN and with the PSTN/ISDN**				
REP 3.0.0	PA SMG3		J.Vainikka	Nokia	- -
09.10	**Information Element Mapping between Mobile Station - Base Station System (MS - BSS) and Base Station System - Mobile-services Switching Centre (BSS - MCS) Signalling Procedures and the Mobile Application Part (MAP)**				
4.4.0	SA SMG3 SMG2	#8: 4.0.0 #9: 4.1.0 #10: 4.2.0 #17: 4.3.0 #23: 4.4.0	--- none ---		300 605
5.2.0	SA SMG3 SMG2	#17: 5.0.0 #18: 5.1.0 #23: 5.2.0	--- none ---		GTS
3.0.2	SA SMG3 SMG2		--- none ---		- -
DCS 3.0.0	SA SMG3 SMG2		--- none ---		- -
09.11	**Signalling Interworking for Supplementary Services**				
3.0.1	PA SMG3		L.Letellier	France Telecom	- -
4.6.1	PA SMG3	#7: 4.1.0 #8: 4.2.0 #9: 4.3.0 #12: 4.4.0 #13: 4.5.0 #19: 4.6.0	L.Letellier	France Telecom	300 606
5.1.0	PA SMG3	#18: 5.0.0 #19: 5.1.0	L. Letellier	France Telecom	GTS
09.12	**Application of ISUP Version 2 for the ISDN-PLMN (GSM)Signalling**				
4.1.0	PA SPS1 SMG3	#17: 4.0.0	P.Haendig	Telia Mobitel AB	

(*) For Phase 1 : 1992 Release

GSM NUMBER AND TITLE CURRENT VERSION (*)	RESPONSIBLE PT SMG / STCs	HISTORY	RAPPORTEUR + COMPANY	ETS VERSION + NR
09.78	**CAMEL Application Part phase 1 (stage 3)**			
5.3.0	SA SMG3	#21: 5.0.0 #22: 5.1.0 #23: 5.2.0 #24: 5.3.0		
09.90	**Interworking between Phase 1 Infrastructure and Phase 2 Mobile Stations (MS).**			
4.9.0	FP STF12	#7: 4.0.0 #8: 4.1.0 #9: 4.2.0 #10: 4.3.0 #11: 4.4.0 #15: 4.5.0 #16: 4.6.0 #18: 4.7.0 #19: 4.8.0 #22: 4.9.0	n.a.	ETR 111
5.0.0	FP STF12	#17: 5.0.0	n.a.	GTS
09.91	**Interworking Aspects of the SIM/ME Interface Between Phase 1 and Phase 2**			
4.0.1	RT SMG9	#10: 4.0.0	K.Vedder GAO	ETR 174
5.0.0	RT SMG9	#20: 5.0.0	K.Vedder GAO	ETR 360
09.94	**Recommended Infrastructure Measures to Overcome Specific Phase 1 Mobile Stations Faults**			
4.4.0	FP STF12	#14: 4.0.0 #15: 4.1.0 #16: 4.2.0 #19: 4.3.0 #23: 4.4.0	---none---	ETR 200
5.0.0	FP STF12	#20: 5.0.0	---none---	ETR 361
10.00	**Digital Cellular Telecommunication System Feature Description**			
5.2.0	AB STF12	#19: 5.0.0 & 5.1.0 #20: 5.2.0		ETR 362
10.20	**Lawful Interception requirements for GSM**			
5.0.1	PA SMG10	#19: 5.0.0 #20: 5.0.1		ETR 363
11.10	**Mobile Station Conformity Specification (DCS 1800)**			
DCS 3.1.0	JJD STF12 SMG2 SMG3	#2: 3.2.0 #3: 3.3.0 #4b: 3.4.0 #5: 3.5.0 #6: 3.6.0 #7: 3.7.0 #8: 3.8.0 #9: 3.9.0 #10: 3.10.0 #11: 3.11.0 #12: 3.12.0 #13: 3.13.0	W.Legrand Hutchison-Microtel	v.3.14.1 - -
3.7.0	JJD STF12 SMG2 SMG3	#2: 3.8.0 #3: 3.9.0 #4b:3.10.0 #5: 3.11.0 #6: 3.12.0 #7: 3.13.0 #8: 3.14.0 #8: 3.15.0 #9: 3.16.0 #10: 3.17.0 #11: 3.18.0 #12: 3.19.0 #13: 3.20.0 #15: 3.21.0 #16: 3.22.0	--- none ---	v.3.18.0 300 020-1

(*) For Phase 1 : 1992 Release

GSM NUMBER AND TITLE CURRENT VERSION (*)	RESPONSIBLE PT SMG / STCs	HISTORY	RAPPORTEUR + COMPANY	ETS VERSION + NR
11.10-1 Conformance Specification				
4.21.0	JJD SMG7 PT48V STF12 SMG2 SMG3	#16: 4.13.0 #17: 4.14.0 #18: 4.15.0 #19: 4.16.0 #20: 4.17.0 #21: 4.18.0 #22: 4.19.0 #23: 4.20.0 #24: 4.21.0	---none---	300 607-1
5.4.0	JJD SMG7 PT48V STF12 SMG2 SMG3	#18: 5.0.0 #21: 5.1.0 #22: 5.2.0 #23: 5.3.0 #24: 5.4.0		GTS
11.10-2 Protocol Implementation Conformance Statement Proforma Specification				
4.15.0	JJD SMG7 PT48V STF12 SMG2 SMG3	#16: 4.13.0 #17: 4.14.0 #18: 4.15.0	---none---	300 607-2
11.10-3 Layer3 (L3) Abstract Test Suite (ATS)				
4.21.0	JJD SMG7 PT48V STF12 SMG2 SMG3	#16: 4.13.0 #17: 4.14.0 #18: 4.15.0 #19: 4.16.0 #20: 4.17.0 #21: 4.18.0 #22: 4.19.0 #23: 4.20.0 #24: 4.21.0	---none---	300 607-3
5.0.0	JJD SMG7 PT48V STF12 SMG2 SMG3	#18: 5.0.0		GTS
11.11 Specification of the Subscriber Identity Module - Mobile Equipment (SIM-ME) Interface.				
3.10.0	MS SMG9	#2: 3.11.0 #3: 3.12.0 #8: 3.13.0 #9: 3.14.0 #11: 3.15.0 #12: 3.16.0	K.Vedder Giesecke & Devrient	v.3.16.0 300 045-1/A1
4.19.0	MS SMG9	#7: 4.8.0 #8: 4.9.0 #9: 4.10.0 #10: 4.11.0 #11: 4.12.0 #12: 4.13.0 #13: 4.14.0 #15: 4.15.0 #16: 4.16.0 #18: 4.17.0 #19: 4.18.0 #20: 4.18.1 #21: 4.18.2 #22: 4.19.0	K.Vedder Giesecke & Devrient	300 608
5.8.0	MS SMG9	#16: 5.0.0 #17: 5.1.0 #18: 5.2.0 #19: 5.3.0 #20: 5.4.0 #21: 5.5.0 #23: 5.7.0 #24: 5.8.0	K.Vedder Giesecke & Devrient	300 977
DCS 3.1.3	MS SMG1 SMG9	#2: 3.2.0 #4: 3.3.0 #8: 3.3.1 #9: 3.3.2 #11: 3.3.3 #12: 3.3.4	--- none ---	v.3.3.1 31.12.91
11.12 Specification of the 3 Volt Subscriber Identity Module Equipment (SIM-ME) Interface				
5.0.0	MS SMG9	#16: 5.0.0 WITHDRAWN	R.Lindholm Nokia	300 978
4.2.0	MS SMG9	#15: 4.0.0 #17: 4.1.0 #19: 4.1.2 #21: 4.2.0	R.Lindholm Nokia	300 641
11.14 Specification of Subscriber Identity Module - Mobile Equipment (SIM - ME) Interface for SIM Application Toolkit				
5.6.0	MS SMG9	#18: 5.0.0 #19: 5.1.0 #20: 5.2.0 #21: 5.3.0 #22: 5.4.0 #23 5.5.0 #24: 5.6.0		GTS

(*) For Phase 1 : 1992 Release

GSM NUMBER AND TITLE	CURRENT VERSION (*)	RESPONSIBLE PT SMG / STCs	HISTORY	RAPPORTEUR + COMPANY		ETS VERSION + NR
11.20	**GSM DCS 1800 Base Station Specification**					
DCS	3.1.0	JJD STF12 SMG2 SMG3	#2: 3.2.0 #3: 3.3.0 #4: 3.4.0 #5: 3.5.0 #6: 3.6.0 #7: 3.7.0 #8: 3.8.0 #9: 3.9.0 #10: 3.10.0 #11: 3.11.0 #12: 3.12.0 #17: 3.13.0	--- none ---		- -
	3.6.0	MS SMG8 SMG2 SMG3	#2: 3.7.0 #3: 3.8.0 #4: 3.9.0 #5: 3.10.0 #6: 3.11.0 #7: 3.12.0 #8: 3.13.0 #9: 3.14.0 #10: 3.15.0 #11: 3.16.0 #12: 3.17.0 #14: 3.18.0 #17: 3.19.0	A. Howell	Motorola	- -
11.21	**GSM Radio Aspects Base Station System Equipment Specification**					
	4.9.0	MS SMG8	#11: 4.0.0 #12: 4.1.0 #13: 4.2.0 #15: 4.3.0 #16: 4.4.0 #17: 4.5.0 #18: 4.6.0 #20: 4.7.0 #22: 4.8.0 #23: 4.9.0	S.Pike	Lucent Technologies	300 609-2
	5.1.0	MS SMG8	#23: 5.1.0	S.Pike	Lucent Technologies	
11.22	**GSM Base Station and Ancillary Equipment, Physical and Electronical Parameters, Application of Standards and Guidance Notes**					
	4.1.3	MS SMG8	#11: 4.0.0 #14: 4.1.0 #18: 4.1.1 #20: 4.1.2 #21: 4.1.3	M.Perry	Motorola	300 609-3
11.23	**GSM Signalling Aspects Base Station System equipment Specification**					
	4.8.0	MS SMG8	#11: 4.0.0 #14: 4.1.0 #15: 4.1.0 #16: 4.2.0 #17: 4.3.0 #18: 4.4.0 #19: 4.5.0 #21: 4.6.0 #22: 4.7.0 #23: 4.8.0	---none---		300 609-4
11.24	**GSM Transcoding and Rate Adaptation: Base Station System Equipment Specification**					
	4.1.0	MS SMG8	#14: 400 #20: 4.1.0	V.Fernandez	Motorola	300 609-5
11.26	**GSM Repeater Equipment Specification**					
	4.2.2	MS SMG8	#15: 4.0.0 #17: 4.1.0 #18: 4.2.0 #20: 4.2.2			300 609
	5.1.0	MS SMG8	#23: 5.1.0			
11.30	**Mobile Services Switching Centre**					
REP	3.2.1	PA STF12 SMG3 SMG1		--- none ---		- -
11.31	**Home Location Register Specification**					
REP	3.2.1	PA STF12 SMG3 SMG1		--- none ---		- -

(*) For Phase 1 : 1992 Release

GSM NUMBER AND TITLE CURRENT VERSION (*)	RESPONSIBLE PT SMG / STCs	HISTORY	RAPPORTEUR + COMPANY	ETS VERSION + NR
11.32	**Visitor Location Register Specification**			
REP 3.2.1	PA STF12 SMG3 SMG1		--- none ---	- -
11.40	**DCS 1800 System Simulator Conformity Specification**			
DCS 3.1.0	JJD STF12 SMG2 SMG3	#4: 3.2.0 #11: 3.3.0	--- none ---	- -
3.5.0	JJD STF12 SMG2 SMG3	#2: 3.6.0 #11: 3.7.0	P.Zollman Vodafone	v.3.7.0 300 020-2
12.00	**Objectives and Structure of GSM Public Land Mobile Network (PLMN) Management.**			
4.6.0	MS SMG6	#7: 4.0.0 #8: 4.1.0 #11: 4.2.0 #15: 4.3.0 #16: 4.4.0 #17: 4.5.0 #23: 4.6.0	---none---	300 612-1
12.01	**Common Aspects of Public Land Mobile Network (PLMN) Management.**			
4.4.1	MS SMG6 SMG3	#7: 4.0.0 #8: 4.1.0 #9: 4.1.1 #10: 4.2.0 #11: 4.3.0 #17: 4.4.0	---none---	300 612-2
12.02	**Subscriber, Mobile Equipment (ME) and Services Data Administration.**			
4.6.1	MS SMG6 SMG1	#7: 4.0.0 #8: 4.1.0 #9: 4.2.0 #11: 4.3.0 #15: 4.4.0 #16: 4.5.0 #17: 4.6.0	---none---	300 613
5.0.0	MS SMG6 SMG3	#22: 5.0.0	---none---	
12.03	**Security Management.**			
4.2.1	MS SMG6 SMG1 SMG3	#11: 4.0.0 #14: 4.1.0 #17: 4.2.0	---none---	300 614
12.04	**Performance Management and Measurements for a GSM Public Land Mobile Network (PLMN).**			
4.3.1	MS SMG6 SMG1 SMG3	#8: 4.0.0 #11: 4.1.0 #13: 4.2.0 #17: 4.3.0	---none---	300 615
12.05	**Subscriber Related Call and Event Data.**			
4.3.0	MS SMG6 SMG1	#8: 4.0.0 #11: 4.1.0 #15: 4.1.1 #17: 4.2.0 #22: 4.3.0	---none---	300 616
5.0.0	MS SMG6 SMG1	#23: 5.0.0		
12.06	**Network Configuration Management and Administration.**			
4.1.1	MS SMG6 SMG3	#11: 4.0.0 #12: 4.0.1 #17: 4.1.0	---none---	300 617

(*) For Phase 1 : 1992 Release

GSM NUMBER AND TITLE CURRENT VERSION (*)	RESPONSIBLE PT SMG / STCs	HISTORY	RAPPORTEUR + COMPANY	ETS VERSION + NR
12.07	**Public Land Mobile Network (PLMN) Quality of Service.**			
n.a.	MS SMG6 SMG1 SMG3	work stopped	---none---	300 612
12.08	**Subscriber and Equipment trace**			
4.5.0	MS SMG6 SMG3	#12: 4.0.0 #14: 4.1.0 #16: 4.2.1 #18: 4.3.0 #20: 4.4.0 #22: 4.5.0	B.Szelazek Lucent	300 627
5.0.0	MS SMG6 SMG3	#23: 5.0.0	B.Szelazek Lucent	
12.11	**Maintenance of the Base Station System (BSS).**			
4.1.0	MS SMG6 SMG1 SMG2	#22: 4.1.0	M.Cataldo Lucent	300 619
12.20	**Base Station System (BSS) Management Information.**			
4.2.1	MS SMG6 SMG3	#9: 4.0.0 #11: 4.1.0 #13: 4.1.1 #17: 4.2.0	---none---	300 622
12.21	**Network Management (NM) Procedures and Messages on the A-bis Interface.**			
4.6.0	MS SMG6 SMG2	#7: 4.1.0 #8: 4.2.0 #9: 4.3.0 #11: 4.4.0 #13: 4.5.0 #16: 4.5.2 #21: 4.6.0	A.Yuhan Omnipoint	300 623
5.0.0	MS SMG6 SMG2	#21: 5.0.0	A.Yuhan Omnipoint	
12.22	**Interworking of GSM Network Management (NM) Procedures and Messages at the Base Station Controller (BSC).**			
4.1.4	MS SMG6	#11: 4.0.0 #13: 4.1.0 #16: 4.1.2	A.Yuhan Omnipoint	300 624
12.30	**ETSI Object Identifier Tree; Mobile Domain O&M**			
4.2.0	MS SMG6	#10: 4.0.0 #11: 4.1.0 #15: 4.2.0	---none---	ETR 128
22.01	**Universal Mobile Telecommunications System (UMTS): Service aspects; Service principles**			
3.3.0		#22: 3.1.0 #24: 3.3.0		
30.03	**Selection procedures for the choice of radio transmission technologies of the UMTS**			
3.1.0	PU SMG2	#23: 3.1.0		

(*) For Phase 1 : 1992 Release

GSM NUMBER AND TITLE CURRENT VERSION (*)	RESPONSIBLE PT SMG / STCs	HISTORY	RAPPORTEUR + COMPANY	ETS VERSION + NR
33.20 Security principles for the UMTS				
3.1.0		#24: 3.1.0		
TBR 5 General Attachment Requirements for GSM Mobile Stations				
3.0.0	JJD SMG7 SMG1 SMG2 SMG3 SMG4	#4: 1.0.0 #4b: 3.0.0 #8: Ed1 #12: Ed2	D.Freeman Motorola	- -
TBR 9 Attachment Requirements for GSM Terminal Equipment (Telephony)				
3.0.0	JJD SMG7 SMG1 SMG2 SMG3 SMG4	#4: 1.0.0 #4b: 3.0.0 #8: Ed1 #12: Ed2	D.Freeman Motorola	- -
TBR19 General Attachment Requirements for GSM Mobile Stations				
4.2.1	JJD SMG7 SMG1 SMG2 SMG3 SMG4	#14: Ed1 #16: 4.0.0 #17: 4.1.0 #18: 4.2.0	H.Banken Sigos PT64V	TBR 19
TBR20 Attachment Requirements for GSM Terminal Equipment (Telephony)				
4.0.2	JJD SMG7 SMG1 SMG2 SMG3 SMG4	#14: Ed1 #16: 4.0.0 #17: 4.0.1	H.Banken Sigos PT64V	TBR 20
TBR31 General Attachment Requirements for DCS Mobile Stations				
4.0.2	JJD SMG2	#17: 4.0.0	---none---	TBR 31
TBR32 Attachment Requirements for DCS Terminal Equipment (Telephony)				
4.0.2	JJD SMG2	#17: 4.0.0	---none---	TBR32

ETSI TC SMG ETSI/SMG(97)5 Part B Annex 9
Meeting n°24
Madrid, 15 - 19 December, 1997

Source: **PT SMG**
Title: **PT SMG Status Report to SMG#24**
Status: **Approved**

Main activities-1: Maintenance of specifications

- *SMG2 request to prepare major specifications within 1 week after a plenary*
  - *? Priority STC support <-> new versions of specifications*
  - *? When are specifications requested after SMG#24? Proposal: Some days before the first WP meeting*

Main activities - 2:

- *Support of SMG#22bis and SMG#23*
- *Preparation of SMG#24*
- *Support for STCs*
- *Support for SMG-CG*
- *Program management GSM*
- *Program management UMTS*

Main activities - 3: Interface to ETSI secretariat

- *New severe problems arising every 1-2 months*
  - *New travel rules August 97*
  - *Proposal to reduce the payment for STF contracts*
  - *Limitation of experts' contracts to 18 months*
- *Negotiation on conditions pf GSM MoU funding for GPRS security algorithms*

Main activities - 4: Type approval matters

- *Preparation of consultation meeting with EC on type approval issues early 98*
- *Letter to ACTE for justification of phase 2+ test efforts: see Tdoc SMG 1033/97*
- *Project plan fo phase 2+ MS type approval: see Tdoc SMG 1034 (Agenda Item 5.5)*

Main activities - 5: Special funded work

- *Funded work on ASCI: test purposes were discussed in SMG7; some development for ASCI phase 2; see SMG3 report*

→ *BSS half-rate tests: Outstanding are the signalling tests. Test purposes have been discussed in SMG8.*

Main activities - 6: Information

- *Newsletter: After SMG#22. Next one after SMG#24*
- *CD ROM: see annex 1*

→ *Earlier SMG plenary documents: Are available in electronic form from Tdoc SMG 175/94 onwards*

- *Participation in Seminar for GA#29*

Main activities -6: liaisons - 1

- *Liaison with American T1P1: Preparation of working procedures which were approved in October 1997*
- *Support of meetings/radio workshop with Japanese TTC/ARIB*
- *Meetings with Chinese MPT before and during SMG#23*
- *Information exchange with Korean MPT*
- *Telephone Conferences with American TIA*

Main activities - 7: liaisons - 2

- *Liaison to GSM MoU: discussions with GSM MoU officials on co-operation on GSM and UMTS*
- *Organisation and co-ordination of ITU contributions*
- *Meeting with SES on Mobile Satellite Systems standardisation:*
  see Tdoc SMG 1039/97 (agenda item 5.6)

Main activities - 8: ITU co-ordination

- *Co-ordination of contributions in SMG3 and SMG1*
- *Updated ITU work program for SMG*
- *See agenda item 4.6*

Status of specifications

- *SMG specifications status list (to be distributed with the meeting report)*
- ➔ *Actions for OAP and TAP: Tdoc SMG 993/97*

Status of work items

- *GSM work items: New version of GSM 10.00 will be distributed after SMG#24*
- *GSM roadmap and the WI data base: Tdoc SMG 1150/97 (WI data base only in electronic form)*
- *UMTS work items: UMTS 30.00*

Version management of specifications

- *Discussions in the STCs and WPs*
- *Progress report in Tdoc SMG 1135/97 - to be discussed under AI 5.6*

Resources

- ***Budget usage 1997, budget plan 1998:***
  See Tdoc SMG 934/97, Tdoc SMG 935/97
- ***Additional full time members needed.***
  See Annex 2

Annex 1: CD Rom

- *Trade-off between time and availability of most recent information*
  - *How many new versions of specifications?*
  - *Meeting report: Proposal: Only 1 week after availability on the server for comments; 3 days after availability on the server for severe corrections to final draft*

Source: SMG Chairman

IMT-2000 co-ordination

Background

In continuation of the meeting SMG - TTC/ARIB in August 1997, it was agreed in SMG#23 to have a meeting SMG - ARIB/TTC in February 1998, followed by a multilateral meeting SMG - T1P1 - ARIB/TTC - TIA. Also it was agreed to have a meeting SMG(3) - TTC on IMT-2000 network issues; it was originally planned for October 1997, but this schedule was impossible due to work overload.

Korean TTA has also expressed their wish to participate in the inter-region co-ordination activities.

Telephone conferences SMG/T1P1/TIA have taken place, see Tdoc SMG 936/97.

Planned activities:

4 February 1998: Proposed for meeting TTC - SMG on network issues.

5-6 February 1998: SMG - ARIB/TTC. Draft agenda: see Annex 2.

8 February 1998 (18:00): meeting SMG - T1P1 - TIA. Draft agenda: see Annex 1.

9-10 February 1998: meeting SMG - T1P1 - ARIB - TIA - TTA. Draft agenda: see Annex 3.

UMTS delegation: representatives from SMG, UMTS Forum, GSM MoU 3GIG, ECTEL TMS

Tdoc SMG 8/98, Annex 1

Meeting T1P1, TIA, UMTS Delegation[1]

8 February 1998

Japan

3rd Generation co-ordination

Proposed agenda items

1 Standardisation status in UMTS community

1.1 Air interface

1.2 Core network

2 Standardisation status in T1P1

2.1 Air interface

2.2 Core network

3 Standardisation status in TIA

3.1 Air interface

3.2 Core network

4 Status in ITU

4.1 ITU-R

4.2 ITU-T

4.3 Spectrum issues

5 Identification of commonalities

6 Cooperation methods

7 Way forward

[1] UMTS Delegation: SMG, UMTS Forum, GSM MoU 3GIG, ECTEL TMS

Tdoc SMG 8/98 Annex 2

Meeting ARIB/TTC - UMTS Delegation[2]

5-6 February 1998

Japan

3rd Generation co-ordination

Proposed agenda items

1. Standardisation status in SMG

1.1. Air interface

1.2. Core network

2. Standardisation status in ARIB and TTC

2.1. Air interface

2.2. Core network

3. Status in ITU

3.1. ITU-R

3.2. ITU-T

3.3. Spectrum issues

4. Identification of commonalities

5. Cooperation methods

6. Way forward

[2]UMTS Delegation: SMG, UMTS Forum, GSM MoU 3GIG, ECTEL TMS

Tdoc SMG 8/98 Annex 3

Meeting with ARIB - TTC - T1P1 - TIA - TTA - UMTS Delegation[3]

9-10 February 1998

Japan

3rd Generation co-ordination

Proposed agenda items

1. Standardisation status in Japan

1.1. Air interface

1.2. Core network

2. Standardisation status in SMG

2.1. Air interface

2.2. Core network

3. Standardisation status in T1P1

3.1. Air interface

3.2. Core network

4. Standardisation status in TIA

4.1. Air interface

4.2. Core network

5. Standardisation status in TTA

5.1. Air interface

5.2. Core network

6. Status in ITU

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[3]UMTS Delegation: SMG, UMTS Forum, GSM MoU 3GIG, ECTEL TMS

6.1. ITU-R

6.2. ITU-T

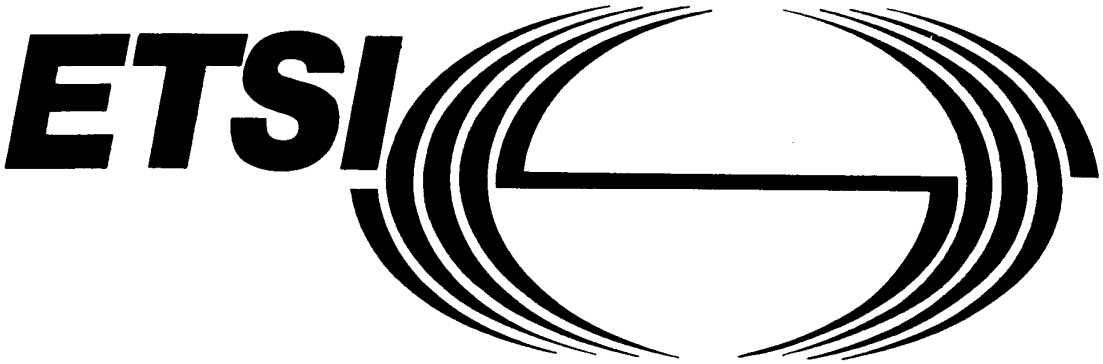
6.3. Spectrum issues

7. Identification of commonalities

8. Way forward

Exhibit B

EUROPEAN TELECOMMUNICATIONS STANDARDS INSTITUTE



ETSI SUB TECHNICAL COMMITTEE SMG2 WPB

SPECIAL MOBILE GROUP

Draft **Meeting Report**

12th SMG2 WPB meeting (Aalborg, Denmark)

11 - 13 January 2000

EXECUTIVE SUMMARY OF THE 12th SMG2 WPB meeting (11 - 13 January, 2000)

1 Meeting date

The 12th meeting of SMG2 WPB was held in Aalborg, Denmark, (11 - 13 January, 1999) and was hosted by **Bosch Telecom**. The meeting was chaired by Mr. Niels P. S. Andersen, Motorola A/S. A total of 75 delegates attended the meeting, representing 31 companies. Tdocs SMG2 34/00, 104/00, 129/00, 168/00, 350/00, 408/00 and 457/00 were withdrawn. Electronic version is missing for Tdocs 410/00 and 455/00.

2 Scope of the meeting

The meeting was dedicated to general GSM matters, like modifications of released specifications, Location Services (LCS), Packet Radio (GPRS), Support of Local Service Area (SoLSA), Antenna Test Methods, Enhanced Data rate for GSM Evolution (EDGE) and its derivatives, GSM 400 MHz and Adaptive Multi Rate (AMR), GSM/EDGE RAN (GERAN) release 2000.

3 Result of the meeting

See Annex D for the complete list of the Output from the meeting.

4 Liaisons with other groups

The agreed LSs and the agreed CRs will be forwarded to SMG2#31 Plenary for approval.

See Annex D.

5 Future meeting dates

SMG2 have scheduled the following meeting(s):

7 February, 2000 Teleconference on **Radio Requirements for the GERAN**

10-11 February 2000 Joint meeting **3GPP TSG RAN RRM Ad Hoc meeting (9-11 february 2000) /SMG2** on GSM-3G handovers and multimode operation, hosted by CSELT, Turin, Italy, starting at noon of February 10th, 2000.

21-25 February 2000 EDGE#13 workshop, hosted by Ericsson in Stockholm, Sweden

21-22 February 2000 Joint SMG12/S2/SMG2 on GERAN Architecture, during the EDGE#13 workshop, hosted by Ericsson in Stockholm, Sweden (tbc)

3 - 7 April 2000 SMG2-WPB#13, host tbd

22 - 26 May 2000 SMG2-WPB#14, host tbd

28 August - 1 September 2000 SMG2-WPB#15, host tbd

13 -17 November 2000 (i.e. the week immediately after SMG Plenary) SMG2-WPB#16, host tbd

Eventually, other meetings will be held, if needed.

ETSI STC SMG2 WPB Meeting no 12

Aalborg, Denmark

11 - 13 January 2000

Title: Draft Report of ETSI STC SMG2-WPB#12

Source: Secretary SMG2 WPB

Table of Contents

Total number of pages: 36

Source: **SMG2 WPB Secretary**

Title: **Draft Report of the 12th ETSI STC SMG2 WPB meeting during SMG2 no. 34.**

7.2.1 Opening of the meeting

The 12th meeting of SMG2 WPB was held in Aalborg, Denmark, (11 - 13 January, 2000) and was hosted by **Bosch Telecom**. The meeting was chaired by Mr. Niels P. S. Andersen, Motorola A/S, that welcomed the delegates. The list of delegates who attended the meeting (and "signed/ticked" the attendance list) can be found in Annex A.

7.2.2 Approval of the agenda

The Agenda was approved (Tdoc SMG2 003/00, see Annex B).

The list of documents is given in Annex C. The Output documents are in Annex D.

7.2.3 Approval of report of the last meeting

The revised report from SMG2-WPB meeting No. 11 was presented during last SMG2 meeting (Tdoc SMG2 1998/99, alias J98/99) and approved; minor editorial corrections were done in Tdoc SMG2 1998/99R, alias J98/99R, made available at this meeting to all delegates. Usually, the reports of meetings are distributed by the Secretary asap, and about 2 weeks are allowed to the delegates for comments/request of changes, etc.

7.2.4 Letters / Reports from other groups

7.2.4.1 SMG

No documents were produced for this Agenda Item.

7.2.4.2 Other ETSI groups

Tdoc SMG2 140/00 "LS to SMG2 on 02.06 specification transfer to 3GPP", from TSG-SA WG1, was already dealt with under A.I. 4.2. It was noted that it was necessary to check if the small MS are adequately defined without GSM 02.06. A reply was provided in

Tdoc SMG2 484/00 "Proposed Response to Liaison Statement on GSM 02.06 specification transfer to 3GPP", from SMG2-WPB, was agreed and will be forwarded to SMG2 Plenary.

7.2.4.3 Others

No documents were discussed under this Agenda Item.

7.2.5 Modifications of released specifications **(including completed phase 2+ work)**

7.2.5.1 03-series

No contribution was presented under this agenda item.

7.2.5.2 05-series

No contribution was presented under this agenda item.

7.2.5.3 08-series (TS 08.60 and TS GSM 08.61)

No documents were presented under this agenda item.

7.2.6 Phase 2+ work

7.2.6.1 Location Services (LCS)

Tdoc SMG2 118/00 "CR 05.50-A012 Background information for requirements on TOA LMU (R98)", from T1P1.5, and

Tdoc SMG2 119/00 "CR 05.50-A013 Background information for requirements on TOA LMU (R99)", from T1P1.5, were presented by Mr. S. Fischer. Stand alone and share deployed scenarios were discussed, focusing on the LMU measurement/control interfaces and thei related gain/attenuation/precision. Concern on the methodology followed and the limited analysis (e.g. pico-cells not tested) was raised. References to T1P1 documents were requested to be put in an Appendix to the Annex, ignoring whether some documents are rather huge. An updated version was requested to be produced in Tdocs SMG2 382/00 and SMG2 383/00, respectively; see also Tdocs SMG2 120/00 and 121/00.

Tdoc SMG2 114/00 "CR 05.05-A236 RF requirements for TOA LMU (R98)", from T1P1.5, and

Tdoc SMG2 115/00 "CR 05.05-A237 RF requirements for TOA LMU (R99)", from T1P1.5, were presented by Mr. S. Fischer. Blocking characteristics and absolute time scale were requested to be clarified. Both CRs were agreed.

Tdoc SMG2 120/00 "CR 05.50-A014 Background information for requirements on E-OTD LMU and E-OTD MS(R98)", CR included in the revised document of Tdoc SMG2 118/00 which was Tdoc SMG2 382/00, and

Tdoc SMG2 121/00 "CR 05.50-A015 Background information for requirements on E-OTD LMU and E-OTD MS (R99)", from T1P1.5, were presented by Mr. Sven Fischer. An updated version was requested to be produced in Tdoc SMG2 383/00; see also Tdocs SMG2 118/00 and 119/00.

Tdoc SMG2 382/00 "CR 05.50-A012 rev 1 Background information for requirements on TOA LMU (R98)", from T1P1.5, and

Tdoc SMG2 383/00 "CR 05.50-A013 rev 1 Background information for requirements on TOA LMU (R99)", from T1P1.5, were presented by Mr. S. Fischer. Both were approved.

Tdoc SMG2 116/00 "CR 05.05-A238 Requirements on E-OTD LMU and E-OTD MS (R98)", from T1P1.5, and

Tdoc SMG2 117/00 "CR 05.05-A239 Requirements on E-OTD LMU and E-OTD MS (R99)", from T1P1.5, were presented by Mr. S. Fischer. A discussion took place on the method to calculate the measurement accuracy. Both were agreed.

Tdoc SMG2 112/00 "GMSK/8-PSK burst detection", from T1P1.5, was presented by Mr. S. Fischer. It was provided for background information.

Tdoc SMG2 106/00 "CR 03.30-A009 LCS operation with repeaters (R98)", from T1P1.5, and

Tdoc SMG2 107/00 "CR 03.30-A010 LCS operation with repeaters (R99)", from T1P1.5, were presented by Mr. S. Fischer. Both were agreed.

Tdoc SMG2 103/00 "CR 02.07-Axxx Changes to SMSCB DRX MS requirements to support LCS Assistance Data broadcast service (R98)", from T1P1.5, was presented by Mr. S. Fischer. It was provided for information. Noted.

Tdoc SMG2 104/00 "CR 02.07-Axxx Changes to SMSCB DRX MS requirements to support LCS Assistance Data broadcast service (R99)", from T1P1.5, was withdrawn. The document was provided for information. It was noted that SMG1 had decided to remove this specification for R99, so the CR was not needed any more.

Tdoc SMG2 105/00 "CR 03.71-A003 rev 1 Corrections for LCS Open Issues (R98)", from T1P1.5, was presented by Mr. Sven Fischer. It was noted for information.

Tdoc SMG2 113/00 "CR 04.31-A001 Modification of RRLP messages (R98)", from T1P1.5, was presented by Mr. Sven Fischer. It was left for the discussion in SMG2-WPA for the details.

Tdoc SMG2 129/00 was withdrawn.

7.2.6.2 Packet Radio (GPRS)

Tdoc SMG2 276/00 "Concept proposal: SMSCB operation in GPRS transfer mode", from Motorola, was presented by Mr. M. Pecen. The mechanism was requested to be clarified by Mr. B. Persson and H. Jokinen, which was done by the Chairman (for GPRS idle mode). Noted. The delegates were urged to study the proposal and if there is any need for adding any information to the specifications.

Tdoc SMG2 19/00 "CR 03.64-A069 rev 1 GPRS and SMS-CB interworking", from Mannesmann, was replaced by Tdoc SMG2 338/00.

Tdoc SMG2 338/00 "CR 03.64-A069 rev 2 GPRS and SMS-CB interworking", from Mannesmann, was presented by Mr. O. Dietrich. Some modifications were requested (deletion of first line, a few editorials, further guidance added for operators). The updated version was provided in Tdoc SMG2 385/00. The corresponding CR to GSM 05.02 was provided in Tdoc SMG2 388/99.

Tdoc SMG2 385/00 "CR 03.64-A069 rev 3 GPRS and SMS-CB interworking", from Mannesmann, was presented by Mr. O. Dietrich. It was agreed.

Tdoc SMG2 388/00 "CR 05.02-A142 GPRS and SMS-CB interworking", , from Mannesmann, was presented by Mr. O. Dietrich. It was revised in Tdoc SMG2 485/00.

Tdoc SMG2 485/00 "CR 05.02-A142 rev 1 GPRS and SMS-CB interworking", from Mannesmann, was presented by Mr. O. Dietrich. It was agreed.

Tdoc SMG2 20/00 "CR 05.02-A121 PTCCH block numbering R97", from Ericsson, was presented by Mr. B. Persson. It was rejected (not essential for this release).

Tdoc SMG2 21/00 "CR 05.02-A122 PTCCH block numbering R98", from Ericsson, was presented by Mr. B. Persson). It was rejected (not essential for this release).

Tdoc SMG2 22/00 "CR 05.02-A123 PTCCH block numbering R99", from Ericsson, was presented by Mr. B. Persson. It was agreed.

Tdoc SMG2 23/00 "CR 05.02-A124 Correction of BS_PRACH_BLKS range R97", from Ericsson, was presented by Mr. B. Persson. It was agreed.

Tdoc SMG2 24/00 "CR 05.02-A125 Correction of BS_PRACH_BLKS range R98", from Ericsson, was presented by Mr. B. Persson. It was agreed.

Tdoc SMG2 25/00 "CR 05.02-A126 Correction of BS_PRACH_BLKS range R99", from Ericsson, was presented by Mr. B. Persson. It was agreed.

Tdoc SMG2 26/00 "CR 05.08-A229 Clarification of Extended Measurement requirements R97", from Ericsson, was presented by Mr. B. Persson. It was rejected (not essential for this release).

Tdoc SMG2 27/00 "CR 05.08-A230 Clarification of Extended Measurement requirements R98", from Ericsson, was presented by Mr. B. Persson. It was rejected (not essential for this release).

Tdoc SMG2 28/00 "CR 05.08-A231 Clarification of Extended Measurement requirements R99", from Ericsson, was presented by Mr. B. Persson. It was agreed.

Tdoc SMG2 29/00 "CR 05.08-A232 Correction of measurement filtering for power control R99", from Ericsson, was presented by Mr. B. Persson. It was revised (a small correction) in Tdoc SMG2 401/00.

Tdoc SMG2 401/00 "CR 05.08-A232 rev1 Correction of measurement filtering for power control R99" was agreed.

Tdoc SMG2 90/00 "Justification of CR to 05.05 on GPRS receiver performance", from Alcatel, was presented by Mr. P. Desblancs. Mr. A. Annunziato commented that for CS4 case CSELT/Ericsson results were aligned, which was recognized, although Alcatel pointed out that in other cases some misalignment was detected (using an ideal simulator). Alcatel felt the request for relaxation justified for CS4 case. Mr. H. Jokinen found other existing mistakes/imperfections in the simulation procedure and assumptions, leading to an even more strict requirement value for BLER=10% performance. Ericsson found the current specification values achievable, according to their simulations. Motorola would like to support Alcatel's proposal. A decision was requested to be taken at this very meeting, for which purpose the Chairman asked for the presentation of the following document.

Tdoc SMG2 38/00 "GPRS CS-4 receiver performance", from CSELT, was presented by Mr. Armando Annunziato. The document asked not to accept the Alcatel's CRs now, and asked new results to be provided from Alcatel, using consistent and common assumptions in line with GSM 05.50 results. Comments: Nokia felt Alcatel's results sufficient to take a decision now, which was requested by Mr. H. Van Bussel. The Chairman remarked the further relaxation was limited to 1/2 dB, for CS4 cases TU3 and TU50, respectively, and for high input level (which represents a difference in the assumption of GSM 05.50).

Decision: Mr. H. van Bussel proposed to accept the relaxation for R97, and the Chairman proposed to extend the decision to R98/R99, as well. TIM and CSELT asked to add the simulation assumptions of Alcatel in the specification, and suggested to add the document SMG2 90/00 from Alcatel in GSM 05.50, which was agreed. Alcatel, in agreement with Cselt, will provide the CRs to GSM 05.50.

Tdoc SMG2 91/00 "CR05.05-A145 Relaxation of C/I performance requirement for CS4 (R97)", from Alcatel, was agreed.

Tdoc SMG2 92/00 "CR05.05-A146 Relaxation of C/I performance requirement for CS4 (R98)", from Alcatel, was agreed.

Tdoc SMG2 93/00 "CR05.05-A147 Relaxation of C/I performance requirement for CS4 (R99)", from Alcatel, was agreed.

Tdoc SMG2 411/00 "CR 05.50-A016 Update of GPRS background information (R97)", from Alcatel, was agreed.

Tdoc SMG2 412/00 "CR 05.50-A017 Update of GPRS background information (R98)", from Alcatel, was agreed.

Tdoc SMG2 413/00 "CR 05.50-A018 Update of GPRS background information (R99)" , from Alcatel, was agreed.

Tdoc SMG2 229/00 "Overall description of GPRS simple class A mobiles", from Vodafone Airtouch, was already presented by Mr. J. Carrizo under A.I. 6.3. It was reminded that power control was still an open issue, beyond the timing advance issue. Noted. The open item discussed was the power control. It was suggested that the power control should respect the rules for both CS and GPRS power control, and , e.g., CS should be considered as GPRS with all blocks addressed to that mobile when seen from the GPRS perspective.

Tdoc SMG2 230/00 "Timing Advance handling for simple class A mobiles", from Vodafone Airtouch, was presented by Mr. J. Carrizo. Mr. B. Persson commented the case of access burst at handover; it was proposed to ignore the GPRS TA procedures and rely only on the CS TA

Tdoc SMG2 244/00 "CR 05.02-A136 Correction to non-DRX mode (R97)", from Alcatel, and

Tdoc SMG2 245/00 "CR 05.02-A137 Correction to non-DRX mode (R98)", from Alcatel, and

Tdoc SMG2 246/00 "CR 05.02-A138 Correction to non-DRX mode (R99)", from Alcatel, were presented by Mr. J. Achard. The three documents were considered together with

Tdoc SMG2 261/00 "CR 05.02-A139 Clarification of non-DRX mode and (P)CCCH operation (R97)", from Nokia,

Tdoc SMG2 262/00 "CR 05.02-A140 Clarification of non-DRX mode and (P)CCCH operation (R98)", from Nokia, and

Tdoc SMG2 263/00 "CR 05.02-A141 Clarification of non-DRX mode and (P)CCCH operation (R99)", from Nokia.

Comments were made by H. Jokinen and B. Persson. The proposal in Tdoc SMG2 244/00 was preferered, therefore the change request in Tdoc SMG2 261, 262, 263/00 were rejected.

It was suggested to elaborate the Alcatel's proposal in Tdocs SMG2 402/00, 403/00, and 404/00.

Tdoc SMG2 402/00 "CR 05.02-A136 rev 1 Correction to non-DRX mode (R97)", from Alcatel, was presented by Mr. J. Achard. It was agreed.

Tdoc SMG2 403/00 "CR 05.02-A137 rev 1 Correction to non-DRX mode (R98)", from Alcatel, was presented by Mr. J. Achard. It was agreed.

Tdoc SMG2 404/00 "CR 05.02-A138 rev 1 Correction to non-DRX mode (R99)", from Alcatel, was presented by Mr. J. Achard. It was agreed.

Tdoc SMG2 226/00 "Clarification of the cell reselection for a GPRS MS", from France Telecom, was presented by Mr. O. Devaud. H. van Bussel supported the document, and the drafting of a LS to N1/S2 proposing a proposal to replace the text of CRs by appropriate references. A liaison statement to S2 and N1 was drafted in Tdoc SMG 406/00.

Tdoc SMG2 406/00 "Proposed Liaison Statement on Clarification of the cell reselection for a GPRS MS", from SMG2-WPB, was briefly presented by Mr. O. Devaud. It was agreed.

Tdoc SMG2 177/00 "CR 04.60-A746 Channel Group structs in PSI4 (R97)", from Nokia, and

Tdoc SMG2 178/00 "CR 04.60-A747 Channel Group structs in PSI4 (R98)", and

Tdoc SMG2 179/00 "CR 04.60-A748 Channel Group structs in PSI4 (R99)" were presented by Mr. A. Leppisaari. For information from SMG2-WPA. The change requests were found acceptable except for a couple of minor corrections needed. Mr. H. van Bussel asked to modify the Reason for change. This was agreed.

SMG2-WPA will revise the change requests.

Tdoc SMG2 242/00 "CR 05.02-A135 Simple class A: definition of DTM classes (R99)", from Vodafone Airtouch, was revised in Tdoc SMG2 350/00.

Tdoc SMG2 350/00 "CR 05.02-A135 rev 1 Simple class A: definition of DTM classes (R99)" was withdrawn.

7.2.6.3 SoLSA

No documents were produced for this A.I.

7.2.6.4 GSM-3G handovers and multimode operation

Tdoc SMG2 130/00 "LS to SMG2-WPA on UMTS PLMN selection", from TSG-N WG1, was already presented during A.I. 4.2. The liaison statement was noted. Further it was noted that a draft split had been created.

Tdoc SMG2 131/00 "CR on removal of CN procedures from 03.22 (03.22 split) (Work Item TEI)", from 03.22 split drafting group, was already presented during A.I. 4.2. It was agreed. References to be fixed before presentation to SMG#31.

Tdoc SMG2 132/00 "Proposed TS 23.122 (03.22 & 23.022 split)", from 03.22 split drafting group, was already presented during A.I. 4.2. Used together with Tdoc SMG2 131/00. TS 23.122 has already been agreed by TSG-CN.

Tdoc SMG2 133/00 "CR 03.22-A039 rev1 Correction of Figure A.2 in Annex A (WI PCS1900 Harmonisation)", from TSG-N WG1, was already presented during A.I. 4.2. Agreed by TSG-CN and provided for information.

Tdoc SMG2 134/00 "GSM 03.22 version 7.3.0 – For information and reference", from MCC, was already introduced during A.I. 4.2. It was illustrated in detail by the Chairman.

The split was accepted and a Rapporteur was proposed to be appointed, as soon as identified.

Tdoc SMG2 137/00 "LS to SMG2 on the measurement requirements for GSM in UMTS", from TSG-RAN WG2, was presented by the Chairman. A reply will be provided c/o a drafting group in Tdoc SMG2 463/00.

Tdoc SMG2 463/00 "Draft Liaison Statement on the measurement requirements for GSM in UMTS", from SMG2-WPB, was presented by Mr. H. Jokinen. It was agreed.

Tdoc SMG2 351/00 "CR 05.08-A242 Intersystem handover and cell reselection", from Ericsson, was presented by Mr. B. Persson. A number of comments were made, from Mr. H. van Bussel on mode of operation set by parameters, on Q search, to safeguard the operator's decision power about parameter setting and handover of MS; on use of new parameter for handover from GSM; from Mr. M. Farber on the general assumptions for measuring reports and the related information, in case of transition between different technologies; from Ms. J. Pekonen on handover based on reporting thresholds, and continuous reporting, which would increase the operator's flexibility; Mr. H. Jokinen in the case a service is not supported by UMTS. The editor will take all comments into account.

7.2.6.5 Antenna test methods

Tdoc SMG2 462/00 "Proposed Liaison Statement on Twinkling replacement antennas", from Telia, was presented by MR. U. Tegth. It was agreed.

7.2.6.6 Enhanced Data Rates for GSM Evolution (EDGE)

Tdoc SMG2 386/00 "**Proposed Liaison Statement to SMG7 on Testing of Link Quality Measurement accuracy**", from SMG2 EDGE workshop #12, was presented by Mr. A. Furuskär. It was agreed to send the liaison statement as revised in Tdoc SMG2 453/00.

Tdoc SMG2 453/00 "Proposed Liaison Statement to SMG7 on Testing of Link Quality Measurement accuracy" was agreed.

Tdoc SMG2 387/00 "**Proposed Answer to Liaison Statement from SMG7 on Definition of Block Errors**", from SMG2 EDGE workshop #12, was presented by Mr. A. Furuskär. It was agreed to send the liaison statement.

EGPRS

Tdoc SMG2 250/00 "Optional Filtering for EGPRS LQC measurements", from Nokia, was presented by Mr. G. Sebire. It was requested by Mr. M. Farber that the reliability of mobile speed determination from the network and benefits of transmitting the so called "forgetting factor" be

clarified. A discussion took place whether MS speed or forgetting factor should be transmitted. Mr. A. Furuskar asked to wait for the approval of the mechanism. Mr. G. Sebire asked whether objections would exist to the MS use of the speed knowledge determined by the MS itself. It was commented that risk exists to have two categories of MSs in the field. Impact on quality measurements and whether new parameters are defined/used was clarified. An alignment between the text of the CR and of the document as far as regards the involved parameter(s) was requested by Mr. J. Achard. It was accepted to allow the forgetting factor on a TBF basis. However, it was for the time being not accepted to include the speed.

Tdoc SMG2 35/00 "**Link Quality Control Measurements Filtering for EGPRS**", from Ericsson, was presented by Mr. S. Jäverbring. Nokia supported the filtering proposal contained in the document. The proposal was accepted in principle.

Tdoc SMG2 252/00 "CR 05.08-A240 EGPRS LQC measurements filtering", from Nokia, was presented by Mr. G. Sebire. Some changes were identified and the document was updated in Tdoc SMG2 353/00 "CR 05.08-A240 EGPRS LQC measurements filtering". Tdoc SMG2 353/00 was amended as well (concerning the accuracy of speed parameter determination). The revised document will be in Tdoc SMG2 421/00.

Tdoc SMG2 421/00 "CR 05.08-A240 rev 2 EGPRS LQC measurements filtering", from Nokia, was revised in Tdoc SMG2 502/00.

Tdoc SMG2 502/00 "CR 05.08-A240 rev 3 EGPRS LQC measurements filtering" was agreed.

Tdoc SMG2 36/00 "Link Quality Control Measurement Accuracy Requirements for EGPRS", from Ericsson, was withdrawn.

Tdoc SMG2 260/00 "Link Quality Control Measurement Accuracy Requirements for EGPRS", from Ericsson, was presented by Mr. S. Jäverbring. Replaces Tdoc SMG2 36/00. It was requested to clarify the statistical properties of measurement errors and whether all "forgetting factor" cases were included, depending on the channel conditions. Nokia felt requirements (e.g. accuracy) to be smoothed before approving them. Mr. J. Achard asked different channel conditions to be considered (beyond the TU3 case used in the document). The proposed principles for specification of the LQC measurement Accuracy Requirements were found acceptable.

Tdoc SMG2 37/00 "**Incremental Redundancy Performance Requirements for EGPRS**", from Ericsson, was presented by Mr. S. Jäverbring. The proposed principles were agreed, however it was noted that time is required to verify the proposed values.

Tdoc SMG2 409/00 "**CR 05.09-A006 Incremental Redundancy performance requirements**", from Ericsson, was presented by Mr. S. Jäverbring. it was debated whether the CR would be better addressed to GSM 05.05 and/or GSM 05.08, as Informative Annex, with figures still to be agreed in []. It was agreed to include the changes in GSM 05.05 and GSM 05.08 Tdoc SMG2 451/00 and Tdoc SMG2 452/00.

Tdoc SMG2 451/00 "CR 05.05-A150 Incremental Redundancy Performance", from SMG2-WPB, was agreed.

Tdoc SMG2 452/00 "CR 05.08-A244 Example on Link Adaptation Algorithm for EGPRS", from SMG2-WPB, was agreed.

Tdoc SMG2 352/00 "CR 05.03-A037 Correction for EGPRS channel coding" was agreed.

ECSD

Tdoc SMG2 253/00 "CR 05.03-A036 Correction for ECSD Channel Coding", from SMG2 EDGE workshop #12, was presented by Mr. G. Sebire. It was agreed.

LAYER 1

Tdoc SMG2 86/00 "Outcome of Drafting group on MS EGPRS RX performance", from SMG2 EDGE workshop #12, was noted.

Tdoc SMG2 60/00 "CR 05.05-A140 EGPRS receiver performance for MS DCS 1800 and PCS 1900", from Ericsson, Motorola, Nokia, was presented by Mr. M. Samuelsson. The text in the Note was requested to be put in a normative section. USF numbers were proposed to be inserted as well. An updated version will be produced in Tdoc SMG2 454/00.

Tdoc SMG2 454/00 "CR 05.05-A140 rev 1 EGPRS receiver performance for MS DCS 1800 and PCS 1900" was updated in Tdoc SMG2 459/00 (see below).

Tdoc SMG2 85/00 "Outcome of Drafting group on BTS EGPRS RX performance", from SMG2 EDGE workshop #12, was noted.

Tdoc SMG2 81/00 "EGPRS Receiver Performance for BTS", from Ericsson. Noted as background for the Ericsson results ín Tdoc SMG2 85/00.

Tdoc SMG2 254/00 "Proposed values for 05.05 ECSD receiver performance (MS)", from Ericsson, Nokia, and

Tdoc SMG2 349/00 "CR 05.05-A148 ECSD Receiver performance for MS" were treated together. The values were requested to be confirmed, page 49 Table corrected, GPRS values adopted, and the CR number in the document fixed. A revised version will be provided in Tdoc SMG2 455/00.

Tdoc SMG2 455/00 "CR 05.05-A148 rev 1 ECSD Receiver performance for MS" was updated in Tdoc SMG2 459/00.

Tdoc SMG2 84/00 "ECSD Receiver performance for BTS", from Ericsson, was noted as background for Tdoc SMG2 255/00.

Tdoc SMG2 255/00 "Proposed values for 05.05 ECSD receiver performance (BTS)", from Ericsson, Nokia, was noted for information. Corresponding change request expected for the next EDGE workshop.

Tdoc SMG2 32/00 "EDGE 8-PSK Nominal Error Rate Receiver Performance", from Lucent Technologies. The results were noted.

Tdoc SMG2 210/00 "NER performance for (MS) 8-PSK", from Nokia. The results were noted.

Tdoc SMG2 82/00 "NER Performance for 8-PSK", from Ericsson. The results were noted.

Tdoc SMG2 61/00 "CR 05.05-A141 Nominal Error Rate performance for 8-PSK", from Ericsson, was presented by Mr. M. Samuelsson. It was concluded that an update would be needed, to take into account the results in the previous documents. This was provided in Tdoc SMG2 504/00.

Tdoc SMG2 504/00 "CR 05.05-A141 rev 1 Nominal Error Rate performance for 8-PSK" was agreed.

Tdoc SMG2 83/00 "USF Performance for 8-PSK", from Ericsson. Values noted; similar results from Nokia in Tdoc SMG2 211/00.

Tdoc SMG2 211/00 "USF performance for 8-PSK", from Nokia, was noted.

Tdoc SMG2 418/00 was revised in

Tdoc SMG2 456/00 "Outcome of the Drafting Group on EDGE Receiver Performance", from EDGE Drafting Group on BTS / MS Receiver Performance; EQ 50 was requested to be removed, 850 MHz bandwidth was instead requested to be included, additional test loop request was raised as rather urgent issue, if needed. Conclusion. It was agreed not to include EQ-50 for 8-PSK. Delegates were urged to continue the discussion in order to have proposals for the open values.

Tdoc SMG2 87/00 "CR 05.05-A101 rev 3 Transmitter/receiver performance for EDGE", from SMG2 EDGE workshop #12, was presented by Mr. M. Samuelsson. A number of comments were given. It was proposed to combine Tdocs SMG2 454/00 and 455/00 as well into a unique CR, if possible; The revised document was Tdoc SMG2 459/00.

Tdoc 459/00 " CR 05.05-A101 rev 4 Transmitter/receiver performance for EDGE", from SMG2-WPB, was commented by Mr. D. Choukroun and the Chairman about the Tables on 10% and 30% BLER and their field of applicability (text to be improved for clarity, marking the cases related to 10% and 30% BLER, respectively). The revised version will be provided in Tdoc SMG2 503/00.

Tdoc SMG2 503/00 "CR 05.05-A101 rev 5 Transmitter/receiver performance for EDGE" was agreed.

Tdoc SMG2 42/00 "CR 05.05-A134 Measurement Filter for EDGE EVM", from Agilent Technologies, was presented by Mr. D. Dunne. It was revised in

Tdoc SMG2 460/00 "CR 05.05-A134 rev 1 Measurement Filter for EDGE EVM", which was agreed.

Tdoc SMG2 43/00 "CR 05.05-A135: Definition of 8PSK modulation accuracy parameters in Annex G", from Agilent Technologies, was presented by Mr. D. Dunne. The CR was discussed. Concern was raised about the lack of information about the compensation of the signal. On this background it was not possible to approve the change request. The CR was represented in Tdoc SMG2 471/00.

Tdoc SMG2 471/00 "CR 05.05-A135 rev 1 Definition of 8PSK modulation accuracy parameters in Annex G" was revised in Tdoc SMG2 505/00.

Tdoc SMG2 505/00 "CR 05.05-A135 rev 1 Definition of 8PSK modulation accuracy parameters in Annex G" was agreed.

Tdoc SMG2 34/00 "Effect of Removing Droop Compensation from the EVM Calculations", from Siemens, was withdrawn.

Tdoc SMG2 384/00 "CR 05.05-A149 EVM requirements for EDGE BTS transmitter with combining equipment", from SMG2 EDGE workshop #12, was agreed.

Tdoc SMG2 56/00 "CR 05.05-A136 Clarification of Intra BTS Intermodulation Attenuation requirements for MXM 850 and MXM 1900 BTS", from SMG2 EDGE workshop #12, was presented by Mr. M. Samuelsson. It was agreed.

Tdoc SMG2 57/00 "CR 05.05 A137 Clarification of Intra BTS Intermodulation Attenuation requirements for PCS 1900 BTS", from SMG2 EDGE workshop #12, was presented by Mr. M. Samuelsson. It was agreed.

Tdoc SMG2 58/00 "CR 05.05 A138 Definition of MS for Mixed-mode network", from SMG2 EDGE workshop #12, was presented by Mr. M. Samuelsson. It was agreed.

Tdoc SMG2 59/00 "CR 05.05-A139 Correction to Output level dynamic operation", from SMG2 EDGE workshop #12, was presented by Mr. M. Samuelsson. It was agreed.

Tdoc SMG2 63/00 "CR 05.05-A142 Corrections to receiver characteristics for EDGE", from Ericsson, was presented by Mr. M. Samuelsson. It was agreed.

Tdoc SMG2 33/00 "EDGE Practical BTS Implementation and Spectrum due to Switching Requirements", from Siemens, was noted as providing background for the CR in Tdoc SMG2 273/00.

Tdoc SMG2 273/00 "CR 05.05-A151 Switching Transients for 8-PSK", from Siemens, was presented by Mr. D. Thomas. It was amended in Tdoc SMG2 482/00, due to a wrong CR number.

Tdoc SMG2 482/00 "CR 05.05-A151 Switching Transients for 8-PSK" was agreed.

Tdoc SMG2 62/00 "CR 05.10-A050 Modifications for 8-PSK", from Ericsson, was presented by Mr. M. Samuelsson. It was agreed.

Tdoc SMG2 101/00 "CR 05.50-A011 8-PSK Introduction Change Request for GSM 05.50", from Nortel Networks, was presented by Mr. D. Choukroun. It was revised in

Tdoc SMG2 458/00 "CR 05.50-A011 8-PSK Introduction Change Request for GSM 05.50", that was agreed.

Tdoc SMG2 47/00 "CR 05.90-A001 EMC Aspects of 8PSK modulation", from SMG2 EDGE workshop #12, was presented by Mr. J. Oudelaar. As there was still discussion on a few of the parts of the change request is was agreed to try to resolve the open issues by E-mail in order to have a updated version presented to the next EDGE workshop.

Finally it was agreed to withdraw GSM 05.90 from Release 99 and onwards !

Tdoc SMG2 461/00 "Open items on EDGE release 99", from Rapporteur, was presented by Mr. F. Muller and T Ljunggren. Noted. A revised version will be provided in Tdoc SMG2 486/00, to be presented at the Plenary, taking into account the output from the ad-hoc groups.

Tdoc SMG2 486/00 "Open items on EDGE release 99"

EDGE COMPACT

Tdoc SMG2 151/00 "CR 04.60-A426 rev3 Non-GSM Broadcast Information", from Ericsson, was presented by Mr. P. Barany. Noted as for information; SMG2-WPA will deal with the details.

Tdoc SMG2 223/00 "CR 04.18-A003 rev 2 Non-GSM Broadcast Information", from SMG2 EDGE workshop #12, was presented by Mr. P. Barany. Noted as for information; SMG2-WPA will deal with the details.

Tdoc SMG2 95/00 "CR 05.02-A127 COMPACT Change Request for GSM 05.02", from SMG2 EDGE workshop #12, was presented by Mr. P. Barany. A number of comments were made. The revised version will be produced in

Tdoc SMG2 464/00 "CR 05.02-A127 rev 1 COMPACT Change Request for GSM 05.02" was agreed.

Tdoc SMG2 96/00 "CR 05.08-A234 COMPACT Change Request for GSM 05.08", from SMG2 EDGE workshop #12, was presented by Mr. P. Barany. A number of comments were made. The revised version will be produced in

Tdoc SMG2 465/00 "CR 05.08-A234 rev 1 COMPACT Change Request for GSM 05.08" was agreed.

Tdoc SMG2 97/00 "CR 05.08-A203 Rev. 1 COMPACT Change Request for GSM 05.08", from SMG2 EDGE workshop #12, was presented by Mr. P. Barany. Mr. B. Persson commented that no requirement is set on the accuracy of measurements in the CR. A number of other comments were made. The revised version will be produced in

Tdoc SMG2 466/00 "CR 05.08-A203 rev. 2 COMPACT Change Request for GSM 05.08" was revised in Tdoc SMG2 506/00.

Tdoc SMG2 506/00 "CR 05.08-A203 rev. 3 COMPACT Change Request for GSM 05.08" was agreed.

Tdoc SMG2 144/00 "CR 05.10-A051 Timegroup definition removal from 05.10", from Ericsson, was presented by Mr. C. Lindheimer. It was agreed.

Tdoc SMG2 145/00 "CR 05.02-A128 Timegroup rotation and NIB Clarification", from Ericsson, was presented by Mr. C. Lindheimer. It was agreed.

Tdoc SMG2 222/00 "CR 05.02-A133 USF Handling in B0", from SMG2 EDGE workshop #12, was presented by Mr. C. Lindheimer. It was agreed.

Tdoc SMG2 146/00 "CR-05.02-A129 Clarifications in 05.02", from Ericsson, was presented by Mr. C. Lindheimer. It was treated together with Tdoc SMG2 227/00.

Tdoc SMG2 227/00 "CR 05.02-A134 Amount of CPBCCH and CPPCH blocks per PDCH", from Lucent Technologies, was presented by Mr. J. Oudelaar.

Conclusion. It was agreed that the contents of Tdoc SMG2 227/00 were included by Tdoc SMG2 146/00.

Tdoc SMG2 146/00 "CR-05.02-A129 Clarifications in 05.02" was agreed.

Tdoc SMG2 147/00 "CR-03.22-A049 Cell Selection (corrections after SA1)", from Ericsson, was presented by Mr. C. Lindheimer. It was provided for information. Noted as being under CN responsibility. The change should be converted to a change to TS 23.122.

Tdoc SMG2 488/00 "Liaison Statement on CR 23.122 after split in SMG2 and CN1", from SMG2-WPB was revised in Tdoc SMG2 500/00, which was agreed.

Tdoc SMG2 500/00 "Liaison Statement on CR 23.122 after split in SMG2 and CN1" was agreed.

Tdoc SMG2 148/00 "CR 11.11-Axxx COMPACT Cell Selection (For information)", from Ericsson, was presented by Mr. C. Lindheimer. It was provided for information. Noted.

Tdoc SMG2 187/00 "Complete Frequency hopping for COMPACT", from UWCC, was presented by Mr. P. Fouilland. Provided background for the change requests in Tdoc SMG2 188/00 and Tdoc SMG2 190/00. Comments were made.

Tdoc SMG2 417/00 "CR 05.02-A143 Complete Frequency hopping on COMPACT", from Ericsson, was presented by Mr. B. Persson. No support was given to the alternative proposal for an improved frequency hopping for COMPACT, that was not found acceptable.

Tdoc SMG2 188/00 "CR 05.01-A024 on complete Frequency hopping for COMPACT", from UWCC, was presented by Mr. P. Fouilland. It will be revised in Tdoc SMG2 467/00 .

Tdoc SMG2 467/00 "CR 05.01-A024 rev 1 on complete Frequency hopping for COMPACT" was agreed.

Tdoc SMG2 190/00 "CR 05.02-A130 Complete Frequency hopping for COMPACT", from UWCC, was presented by Mr. P. Fouilland. An alternative proposal was presented in Tdoc SMG2 416/00, which was pursued instead of this change request.

Tdoc SMG2 416/00 "Frequency hopping on uplink for COMPACT", from Ericsson, was found acceptable. The change request was agreed, but it was found necessary to update and merge it with the change request in Tdoc SMG2 191/00. The revised change request was issued in Tdoc SMG2 468/00.

Tdoc SMG2 194/00 "New block ordering for COMPACT", from UWCC, was presented by Mr. P. Fouilland. Provides background for the change request in Tdoc SMG2 191/00. It was noted.

Tdoc SMG2 191/00 "CR 05.02-A131 New block ordering for COMPACT", from UWCC, was presented by Mr. P. Fouilland. Change request was agreed, but it was found necessary to update and merge it with the change request in Tdoc SMG2 416/00. The revised change request was issued in Tdoc SMG2 468/00.

Tdoc SMG2 468/00 "CR 05.02-A143 rev 1 Complete Frequency hopping on COMPACT" was agreed.

Tdoc SMG2 193/00 "COMPACT frequency correction burst", from Motorola, was discussed. The document was providing background for the change requests in Tdoc SMG2 189/00 and Tdoc SMG2 192/00. The document proposes a new frequency correction burst for COMPACT which creates a sine wave at ≈ –16.9 kHz (exactly 1625/96) below the RF carrier.

It was commented that the proposed signal is believed to have significant side loops outside the 200 kHz carrier, which unfortunately, seen from the adjacent channel might imitate a normal FCH. It was explained that these side loops was 22 dB below the carrier before filtering, so it was not expected to be a problem after filtering.

Further the proposed signal is a true 8-PSK signal which means that it might be necessary to back-off on the output power. It was explained that as the proposed signal is a sine wave, there is no need for back-off on the output power. However, this was disputed as it was believed that the signal still contained some amplitude modulation, which would require some back-off on the output power in the order of 1 dB. This might impact the RX level measurements.

Taking the drawback into consideration, it was decided to reject the proposal and consequently the change request in Tdoc SMG2 189/00 and Tdoc SMG2 192/00. Therefore,

Tdoc SMG2 189/00 "CR 05.01-A025 COMPACT frequency correction burst", from Motorola, was rejected (see Tdoc SMG2 193/00 for reasoning). And

Tdoc SMG2 192/00 "CR 05.02-A132 COMPACT frequency correction burst", from Motorola, was rejected (see Tdoc SMG2 193/00 for reasoning).

Tdoc SMG2 407/00 "CR 05.08-A243 Missing GSM 850 requirements for Classic BCCH", from Nokia, was presented by Ms. J. Pekonen. This change request is proposed because some GSM 850 requirements for Classic BCCH are missing.

The change request was found acceptable, however a minor revision was proposed. A revised version was issued in Tdoc SMG2 469/00.

Tdoc SMG2 469/00 "CR 05.08-A243 rev 1 Missing GSM 850 requirements for Classic BCCH" was agreed.

7.2.6.7 GSM/EDGE RAN release 2000

Tdoc SMG2 415/00 "GERAN Timeplan for Release 2000 – 2001", from the Drafting Group on GERAN, was presented by Mr. F. Muller. The Chairman commented that MM is beyond SMG2 responsibility, and should be kept separated; a feasibility study document was felt difficult to be fully produced at this point in time, but the radio and upper layer matters could be elaborated. Mr. B. Guarino asked a reference to be added on multiplexing scenarios. Backward compatility issue was clarified to be a requirement. Mr. H. van Bussel remarked the importance of this issue for GSM operators. The subject will be part of the SR to SMG. Based on the comments received in SMG2-WPB a revised version of the document was issued fin Tdoc SMG2 472/00 for discussion in SMG2-WPA.

SMG2-WPA felt the document SMG2 472/00 adequate "as is". No changes were proposed to the document from SMG2-WPA.

Tdoc SMG2 472/00 "GERAN Timeplan for Release 2000 – 2001" will be forwarded to SMG2 Plenary.

Tdoc SMG2 419/00 "Draft Liaison Statement on GERAN (GSM/EDGE) architecture. Response to Tdoc SMG2 141/00", from the Drafting Group on GERAN, was presented by Mr. M. Farber. A revised version was issued in Tdoc SMG2 470/00.

Tdoc 470/00 "Draft Liaison Statement on GERAN (GSM/EDGE) architecture. Response to Tdoc SMG2 141/00" was forwarded to the Plenary SMG2.

Tdoc SMG2 420/00 "Radio Requirements for the GERAN", from the Drafting Group on GERAN, was presented by Mr. M. Johansson. Several comments were made on the text of the document, which will be forwarded to SMG2-WPA as well. A teleconference will be held on February 7th, 2000.

It was updated in Tdoc SMG2 487/00.

Tdoc SMG2 199/00 "Interleaving for Half Rate Channels in EGPRS Phase II", from Lucent Technologies, was presented by Mr. C. Demetrescu. A. Furuskar asked the consequences in case of full-rate and about backward compatibility (not for R2000).

Tdoc SMG2 200/00 "Speech Aspects for Statistically Multiplexed Voice Bearers", from Lucent Technologies, was presented by Mr. J. Seymour. Speech coding rate change was requested to be clarified; bit rate at 4.75 kbit/s will be used in some cases (low quality). Noted.

Tdoc SMG2 201/00 "Performance of burst-based access and assignment for EGPRS Phase II", from Lucent Technologies, was presented by Mr. C. Demetrescu. Questions for clarifications were raised. Worst case was considered C/I=9 dB.

Tdoc SMG2 202/00 "Capacity and Control Channel Overhead for Statistical Multiplexing of Voice in EGPRS Phase II", from Lucent Technologies, was presented by Mr. C. Demetrescu. Mr. A. Furuskar commented the gain of the proposal, and it was clarified the control channel overhead was kept conservative, 25% not allowed for the calculations.

Tdoc SMG2 203/00 "8-PSK vs. QPSK Considerations for RT-EGPRS", from Lucent Technologies, was presented by Mr. J. Seymour. Optimised scheme was not tried. Considering the set of results available, the greater complexity issue was questioned, as well as, on the other side, whether a decision to exclude QPSK could be taken (at this meeting). The discussion was left to be continued off-line. It was suggested that the found gains do not justify to pursue the QPSK further

Tdoc SMG2 204/00 "Access Burst for Block-Based Fast Access", from AT&T, was presented by Mr. B. Guarino. Training sequence access burst (alternative) was felt feasible only if a marker is used. Compatibility and other issues were left for SMG2-WPA competence.

Tdoc SMG2 66/00 "Enhanced multiplexing in EGPRS phase II / GERAN", from Ericsson, was Presented and discussed. Delegates urged to study the details of the proposal. Some dalegates indicated that they had a preference for the proposal in Tdoc SMG2 204/00. About the timing advance alignment issue (for this and the previous document), it was asked whether sufficient info was available to evaluate both proposals.

7.2.6.8 GSM 400

Tdoc SMG2 80/00 "CR 05.05-A143 Spurious emission measurement bandwidths updated to include GSM 400 systems", from Ericsson, was revised in

Tdoc SMG2 348/00 "CR 05.05-A143 rev 1 Spurious emission measurement bandwidths updated to include GSM 400 systems", that was presented by Ms. I. Ericsson. It was agreed.

7.2.6.9 Adaptive Multi Rate codec

Tdoc SMG2 39/00 "CR 05.03-A034 Correction concerning AMR - SID_FIRST signalling and clarification concerning bit order of codec mode code words R98" from Ericsson, Philips, was presented by Mr. B. Persson. It was agreed.

Tdoc SMG2 40/00 "CR 05.03-A035 Correction concerning AMR - SID_FIRST signalling and clarification concerning bit order of codec mode code words R99" from Ericsson, Philips, was presented by Mr. B. Persson. It was agreed.

Tdoc SMG2 41/00 "CR 05.09-A005 Clarification of the identification of the codec modes within the active codec set for AMR" from Ericsson, Philips, was presented by Mr. B. Persson. It was agreed.

7.2.6.10 Cordless Telephony System (CTS)

No documents were presented under this Agenda item.

7.2.6.11 Technical enhancement and improvement

The folllowing documents were presented under this Agenda item:

Tdoc SMG2 78/00 "CR 05.08-A207 rev 3; Enhanced Measurement Reporting", from Nokia, was presented by Ms. J. Pekonen. Lots of comments were made. The reporting mechanism for class A neigbours for the different bands was requested to be clarified, which was done. Priority for different serving/reporting bands and class 1 assignment was asked to be explained as well (max 6 can be reported). Further clarifications were requested on accuracy for the extended range, and on the consistency of all requirements. The principle was agreed. A revised version was provided in Tdoc SMG2 489/00.

Tdoc SMG2 489/00 "CR 05.08-A207 rev 4 Enhanced Measurement Reporting", will be presented directly to the SMG2 Plenary meeting.

Tdoc SMG2 79/00 "CR 05.08-A233 Enhanced Measurement Reporting for (E)GPRS", from Nokia, was presented by Ms. J. Pekonen. Assistance data are not needed for Compact The principle was agreed. A revised version was provided in Tdoc SMG2 501/00.

Tdoc SMG2 501/00 "CR 05.08-A233 rev 1 Enhanced Measurement Reporting for (E)GPRS", will be presented directly to SMG2 Plenary.

Tdoc SMG2 168/00 "CR 05.02-A108 rev1 Introduction of additional resources for BCCH and AGCH", from Nortel Networks, was withdrawn.

Tdoc SMG2 176/00 "CR 05.05-A235 Alignment of spurious emissions GSM-3G(UTRA)", from Telia, was presented by Mr. U. Tegth. Comments: Mr. H. van Bussel observed that GSM operators would NOT like being forced to deploy additional equipment due to the introduction of UMTS; therefore any new requirement would need to be considered with great caution, asking for justification for any change. Mr. B. Persson found some new requirements possibly difficult to achieve. Some more time was requested to examine and evaluate the proposed CR. Conclusion: justification for each of the changes was felt adequate, before a change request can be agreed on the subject.

7.2.6.12 Other phase 2+ work

Tdoc SMG2 88/00 "CR 05.05-A144 Harmonisation of Transmitter/receiver performance requirements for PCS 1900", from Ericsson, was presented by Mr. M. Samuelsson. It was agreed.

7.2.7 Letters to other groups

See Annex D for the complete list of LS forwarded to the Plenary.

7.2.8 Work plan and future meetings

See list of meetings in the Executive Summary.

7.2.9 Any other business

None.

7.2.10 Closing of the meeting

The Chairman thanked **Bosch Telecom** for hosting the meeting, and for the excellent facilities provided during the week, and the delegates for attending the meeting. The meeting was closed.

ANNEX A - List of participants

SURNAME	FIRST	COMPANY
ACHARD	Jacques	Alcatel
ANDERSEN	Niels	Motorola
ANNUNZIATO	Armando	CSELT TI Group
ARZELIER	Claude	Vodafone
BARANY	Peter	Nortel Networks
BOGANI	Elena	Omnitel
BUSIN	Ake	Ericsson L. M.
CARRIZO	Jose	Vodafone Airtouch
CASTELLANI	Andrea	TIM
CAVALLI	Simona	Siemens ICN
CHANI	Richard	VLSI Technology
CHOUKROUN	David	Nortel Networks
DEMETRESCU	Cristian	Lucent Technologies
DESBLANCS	Philippe	Alcatel
DE WARREN	Alexis	Cegetel
DEVAUD	Olivier	France Telecom
DIETRICH	Olaf	Mannesmann Mobilfunk
DUNNE	David	Agilent Technology
EDGE	Stephen	Siemens
EDLUND	Peter	Ericsson L. M.
EJZAK	Richard	Lucent Technologies
ERICSSON	Ingela	Ericsson Radio Systems
EVALD	Jesper	Tele Danmark Net Mobil
FARBER	Michael	Siemens
FISCHER	Sven	Ericsson Eurolab
FOUILLAND	Pascal	Motorola
FURUSKAR	Anders	Ericsson Research
GUARINO	Bernard	AT&T
HAMITI	Shkumbin	Nokia Research Center
HAMMER	Volkmar	France Telecom

IVANOV	Daniel	Ericsson
JAVERBRING	Stefan	Ericsson Radio Systems AB
JOHANSSON	Mathias	Ericsson L. M.
JOKINEN	Harri	Nokia
KAINZ	Andreas	Mobilkom Austria
KENDALL	Stephen	Motorola
LAI	Jersey	Nokia Telecommunications
LARSEN	Torben	Bosch Telecom Danmark
LEPPISAARI	Arto	Nokia Mobile Phones
LINDHEIMER	Christofer	Ericsson
LJUNGGREN	Tommy	AT&T
LLORENTE	Carlos	Telefonica
MULLER	Frank	Ericsson
NANDA	Sanjiv	Lucent Technologies
NIKULA	Eero	Nokia Research Center
OBERNOSTERER	Frank	Lucent Tchnologies
OHANA	Alain	BellSouth Mobility DCS
OUDELAAR	Jan	Lucent Technologies
PALSSON	Annika	Ericsson Mobile Communications AB
PARKER	Chris	Motorola
PECEN	Mark	Motorola
PEDERSEN	Kaj Age	Bosch Telecom
PEKONEN	Johanna	Nokia Telecommunications
PERSSON	Bengt	Ericsson Radio Systems AB
QUIRIN	Emmanuel	Nortel Networks
RANTALAINEN	Timo	Nokia Research Center
RIDDINGTON	Eddie	Nokia
ROBERTS	Jason	One-2-One
SAMUELSSON	Mats	Ericsson Radio Systems
SAVUOJA	Arto	Nokia Networks
SEBIRE	Guillaume	Nokia Research Center
SENNELS	Soren	Nokia Mobile Phones
SEYMOUR	James	Lucent Technologies

SHEN	Donglin	AT&T
SIMMONS	Paul	Nortel Networks
SJERLING	Klas	Ericsson
SONGEON	Lionel	Motorola Toulouse France
TEGTH	Ulf	Telia AB
THOMAS	David	Siemens
TONER	Ben	Roke Manor Researh
USAI	Paolo	ETSI
VAN BUSSEL	Han	T-Mobil
VERBESTEL	Willy	Motorola
WILLIAMSON	John	Cellnet

ANNEX B - Agenda

ETSI STC SMG2 Tdoc SMG2 3/00
Meeting no 34

Aalborg, Denmark
10 - 14 January 2000

Draft Agenda for SMG2-WPB during SMG2 no. 34 in Aalborg

7.2.1 Opening of the meeting

7.2.2 Approval of the Agenda

7.2.3 Approval of report of the last meeting

7.2.4 Letters / Reports from other groups

- 7.2.4.1 SMG
- 7.2.4.2 Other ETSI groups
- 7.2.4.3 Others

7.2.5 Modifications of released specifications (including completed phase 2+ work)

- 7.2.5.1 03-Series
- 7.2.5.2 05-Series
- 7.2.5.3 08-series (TS GSM 08.60 and TS GSM 08.61)

7.2.6 Phase 2+ work

- 7.2.6.1 Location Services (LCS)
- 7.2.6.2 Packet radio (GPRS)
- 7.2.6.3 SoLSA
- 7.2.6.4 GSM-3G handovers and multimode operation
- 7.2.6.5 Antenna test methods
- 7.2.6.6 Enhanced Data Rates for GSM Evolution (EDGE)
- 7.2.6.7 GSM/EDGE RAN release 2000
- 7.2.6.8 GSM in the 450 MHz frequency band
- 7.2.6.9 Adaptive Multirate codec

7.2.6.10 Cordless Telephony System (CTS)

7.2.6.11 Technical enhancements and improvement

7.2.6.12 Other phase 2+ work

7.2.7 Letters to other groups

7.2.8 Work plan and future meetings

7.2.9 Any other business

7.2.10 Closing of the meeting

ANNEX C - List of temporary documents

ETSI STC SMG2

Meeting no 34

Aalborg, Denmark

10 – 14 January 2000

List of documents

Tdoc SMG2	Title	Source	Agenda Item
1/00	Draft Agenda	SMG2 chairman	2
3/00	**Draft Agenda for SMG2-WPB during SMG2 no. 34 in Aalborg**	SMG2-chairman	7.2.2
19/00	**CR 03.64-A069 rev 1 GPRS and SMS-CB interworking**	Mannesmann	7.2.6.2
20/00	**CR 05.02-A121 PTCCH block numbering R97**	Ericsson	7.2.6.2
21/00	**CR 05.02-A122 PTCCH block numbering R98**	Ericsson	7.2.6.2
22/00	**CR 05.02-A123 PTCCH block numbering R99**	Ericsson	7.2.6.2
23/00	**CR 05.02-A124 Correction of BS_PRACH_BLKS range R97**	Ericsson	7.2.6.2
24/00	**CR 05.02-A125 Correction of BS_PRACH_BLKS range R98**	Ericsson	7.2.6.2
25/00	**CR 05.02-A126 Correction of BS_PRACH_BLKS range R99**	Ericsson	7.2.6.2
26/00	**CR 05.08-A229 Clarification of Extended Measurement requirements R97**	Ericsson	7.2.6.2
27/00	**CR 05.08-A230 Clarification of Extended Measurement requirements R98**	Ericsson	7.2.6.2
28/00	**CR 05.08-A231 Clarification of Extended Measurement requirements R99**	Ericsson	7.2.6.2
29/00	**CR 05.08-A232 Correction of measurement filtering for power control R99**	Ericsson	7.2.6.2
32/00	**EDGE 8-PSK Nominal Error Rate Receiver Performance**	Lucent Technologies	7.2.6.6

Tdoc SMG2	Title	Source	Agenda Item
33/00	**EDGE Practical BTS Implementation and Spectrum due to Switching Requirements**	Siemens	7.2.6.6
34/00	**Effect of Removing Droop Compensation from the EVM Calculations WITHDRAWN**	Siemens	7.2.6.6
35/00	**Link Quality Control Measurements Filtering for EGPRS**	Ericsson	7.2.6.6
36/00	**Link Quality Control Measurement Accuracy Requirements for EGPRS *REPLACED by TDOC SMG2 260/00***	Ericsson	7.2.6.6
37/00	**Incremental Redundancy Performance Requirements for EGPRS**	Ericsson	7.2.6.6
38/00	**GPRS CS-4 receiver performance**	CSELT	7.2.6.2
39/00	**CR 05.03-A034 Correction concerning AMR - SID_FIRST signalling and clarification concerning bit order of codec mode code words R98**	Ericsson, Philips	7.2.6.9
40/00	**CR 05.03-A035 Correction concerning AMR - SID_FIRST signalling and clarification concerning bit order of codec mode code words R99**	Ericsson, Philips	7.2.6.9
41/00	**CR 05.09-A005 Clarification of the identification of the codec modes within the active codec set for AMR**	Ericsson, Philips	7.2.6.9
42/00	**CR 05.05-A134 Measurement Filter for EDGE EVM**	Agilent Technologies	7.2.6.6
43/00	**CR 05.05-A135 : Definition of 8PSK modulation accuracy parameters in Annex G**	Agilent Technologies	7.2.6.6
47/00	**CR 05.90-A001 EMC Aspects of 8PSK modulation**	SMG2 EDGE workshop #12	7.2.6.6
56/00	**CR 05.05-A136 Clarification of Intra BTS Intermodulation Attenuation requirements for MXM 850 and MXM 1900 BTS**	SMG2 EDGE workshop #12	7.2.6.6
57/00	**CR 05.05 A137 Clarification of Intra BTS Intermodulation Attenuation requirements for PCS 1900 BTS**	SMG2 EDGE workshop #12	7.2.6.6
58/00	**CR 05.05-A138 Definition of MS for Mixed-mode network**	SMG2 EDGE workshop #12	7.2.6.6
59/00	**CR 05.05-A139 Correction to Output level dynamic operation**	SMG2 EDGE workshop #12	7.2.6.6
60/00	CR 05.05-A140 EGPRS receiver performance for MS DCS 1800 and PCS 1900	Ericsson, Motorola, Nokia	7.2.6.6
61/00	CR 05.05-A141 Nominal Error Rate performance for 8-PSK	Ericsson	7.2.6.6
62/00	**CR 05.10-A050 Modifications for 8-PSK**	Ericsson	7.2.6.6
63/00	**CR 05.05-A142 Corrections to receiver characteristics for EDGE**	Ericsson	7.2.6.6
78/00	CR 05.08-A207rev 3; Enhanced Measurement Reporting	Nokia	7.2.6.11

Tdoc SMG2	Title	Source	Agenda Item
79/00	CR 05.08-A233 Enhanced Measurement Reporting for (E)GPRS	Nokia	7.2.6.11
80/00	CR 05.05-A143 Spurious emission measurement bandwidths updated to include GSM 400 systems	Ericsson	7.2.6.8
81/00	EGPRS Receiver Performance for BTS	Ericsson	7.2.6.6
82/00	NER Performance for 8-PSK	Ericsson	7.2.6.6
83/00	USF Performance for 8-PSK	Ericsson	7.2.6.6
84/00	ECSD Receiver performance for BTS	Ericsson	7.2.6.6
85/00	Outcome of Drafting group on BTS EGPRS RX performance	SMG2 EDGE workshop #12	7.2.6.6
86/00	Outcome of Drafting group on MS EGPRS RX performance	SMG2 EDGE workshop #12	7.2.6.6
87/00	CR 05.05-A101 rev 3 Transmitter/receiver performance for EDGE	SMG2 EDGE workshop #12	7.2.6.6
88/00	**CR 05.05-A144 Harmonisation of Transmitter/receiver performance requirements for PCS 1900**	Ericsson	7.2.6.12
90/00	Justification of CR to 05.05 on GPRS receiver performance	Alcatel	7.2.6.2
91/00	CR05.05-A145 Relaxation of C/I performance requirement for CS4 (R97)	Alcatel	7.2.6.2
92/00	CR05.05-A146 Relaxation of C/I performance requirement for CS4 (R98)	Alcatel	7.2.6.2
93/00	CR05.05-A147 Relaxation of C/I performance requirement for CS4 (R99)	Alcatel	7.2.6.2
95/00	CR 05.02-A127 COMPACT Change Request for GSM 05.02	SMG2 EDGE workshop #12	7.2.6.6
96/00	CR 05.08-A234 COMPACT Change Request for GSM 05.08	SMG2 EDGE workshop #12	7.2.6.6
97/00	CR 05.08-A203 Rev. 1 COMPACT Change Request for GSM 05.08	SMG2 EDGE workshop #12	7.2.6.6
101/00	CR 05.50-A011 8-PSK Introduction Change Request for GSM 05.50	Nortel Networks	7.2.6.6
103/00	CR 02.07-Axxx Changes to SMSCB DRX MS requirements to support LCS Assistance Data broadcast service (R98)	T1P1.5	7.1.5.2, 7.2.6.1
104/00	CR 02.07-Axxx Changes to SMSCB DRX MS requirements to support LCS Assistance Data broadcast service (R99)	T1P1.5	7.1.5.2, 7.2.6.1
105/00	CR 03.71-A003 rev 1 Corrections for LCS Open Issues (R98)	T1P1.5	7.1.5.2, 7.2.6.1

Tdoc SMG2	Title	Source	Agenda Item
106/00	CR 03.30-A009 LCS operation with repeaters (R98)	T1P1.5	7.2.6.1
107/00	CR 03.30-A010 LCS operation with repeaters (R99)	T1P1.5	7.2.6.1
112/00	GMSK/8-PSK burst detection	T1.P1.5	7.2.6.2
113/00	CR 04.31-A001 Modification of RRLP messages (R98)	T1P1.5	7.1.5.2, 7.2.6.1
114/00	CR 05.05-A236 RF requirements for TOA LMU (R98)	T1P1.5	7.2.6.1
115/00	CR 05.05-A237 RF requirements for TOA LMU (R99)	T1P1.5	7.2.6.1
116/00	CR 05.05-A238 Requirements on E-OTD LMU and E-OTD MS (R98)	T1P1.5	7.2.6.1
117/00	CR 05.05-A239 Requirements on E-OTD LMU and E-OTD MS (R99)	T1P1.5	7.2.6.1
118/00	CR 05.50-A012 Background information for requirements on TOA LMU (R98)	T1P1.5	7.2.6.1
119/00	CR 05.50-A013 Background information for requirements on TOA LMU (R99)	T1P1.5	7.2.6.1
120/00	CR 05.50-A014 Background information for requirements on E-OTD LMU and E-OTD MS (R98)	T1P1.5	7.2.6.1
121/00	CR 05.50-A015 Background information for requirements on E-OTD LMU and E-OTD MS (R99)	T1P1.5	7.2.6.1
128/00	CR 09.31-A002 Provision of Segmentation support for LCS (R98)	T1P1.5	7.2.6.1
129/00	Withdrawn	T1P1.5	7.2.6.1
130/00	LS to SMG2-WPA on UMTS PLMN selection	TSG-N WG1	4.2, 7.2.6.4
131/00	**CR on removal of CN procedures from 03.22 (03.22 split) (Work Item TEI)**	03.22 split drafting group	4.2, 7.2.6.4
132/00	Proposed TS 23.122 (03.22 & 23.022 split)	03.22 split drafting group	4.2, 7.2.6.4
133/00	CR 03.22-A039 rev1 Correction of Figure A.2 in Annex A (WI PCS1900 Harmonisation)	TSG-N WG1	4.2, 7.2.6.4
134/00	GSM 03.22 version 7.3.0 – For information and reference	MCC	4.2, 7.2.6.4
137/00	LS to SMG2 on the measurement requirements for GSM in UMTS	TSG-RAN WG2	4.2, 7.2.6.4
140/00	LS to SMG2 on 02.06 specification transfer to 3GPP	TSG-SA WG1	4.2, 7.2.4.2

Tdoc SMG2	Title	Source	Agenda Item
144/00	**CR 05.10-A051 Timegroup definition removal from 05.10**	Ericsson	7.2.6.6
145/00	**CR 05.02-A128 Timegroup rotation and NIB Clarification**	Ericsson	7.2.6.6
146/00	**CR-05.02-A129 Clarifications in 05.02**	Ericsson	7.2.6.6
147/00	CR-03.22-A049 Cell Selection (corrections after SA1)	Ericsson	7.2.6.6
148/00	CR 11.11-Axxx COMPACT Cell Selection (For information)	Ericsson	7.2.6.6
151/00	CR 04.60-A426 rev3 Non-GSM Broadcast Information	Ericsson	7.1.5.9, 7.2.6.6
168/00	CR 05.02-A108 rev1 Introduction of additional resources for BCCH and AGCH WITHDRAWN	Nortel Networks	7.2.6.11
176/00	CR 05.05-A235 Alignment of spurious emissions GSM-3G(UTRA)	Telia	7.2.6.11
181/00	Withdrawn		
182/00	Withdrawn		
187/00	Complete Frequency hopping for COMPACT	UWCC	7.2.6.6
188/00	CR 05.01-A024 on complete Frequency hopping for COMPACT	UWCC	7.2.6.6
189/00	CR 05.01-A025 COMPACT frequency correction burst	Motorola	7.2.6.6
190/00	CR 05.02-A130 Complete Frequency hopping for COMPACT	UWCC	7.2.6.6
191/00	CR 05.02-A131 New block ordering for COMPACT	UWCC	7.2.6.6
192/00	CR 05.02-A132 COMPACT frequency correction burst	Motorola	7.2.6.6
193/00	COMPACT frequency correction burst	Motorola	7.2.6.6
194/00	New block ordering for COMPACT	UWCC	7.2.6.6
199/00	Interleaving for Half Rate Channels in EGPRS Phase II	Lucent	7.2.6.7
200/00	Speech Aspects for Statistically Multiplexed Voice Bearers	Lucent	7.2.6.7
201/00	Performance of burst-based access and assignment for EGPRS Phase II	Lucent	7.2.6.7
202/00	Capacity and Control Channel Overhead for Statistical Multiplexing of Voice in EGPRS Phase II	Lucent	7.2.6.7
203/00	8-PSK vs. QPSK Considerations for RT-EGPRS	Lucent	7.2.6.7
204/00	Access Burst for Block-Based Fast Access	AT&T	7.2.6.7
210/00	NER performance for (MS) 8-PSK	Nokia	7.2.6.6
211/00	USF performance for 8-PSK	Nokia	7.2.6.6

Tdoc SMG2	Title	Source	Agenda Item
222/00	**CR 05.02-A133 USF Handling in B0**	SMG2 EDGE workshop #12	7.2.6.6
223/00	CR 04.18-A003 rev 2 Non-GSM Broadcast Information	SMG2 EDGE workshop #12	7.1.5.9, 7.2.6.6
226/00	Clarification of the cell reselection for a GPRS MS	France Telecom	6.6, 7.2.6.2
227/00	CR 05.02-A134 Amount of CPBCCH and CPPCH blocks per PDCH	Lucent	7.2.6.6
229/00	Overall description of GPRS simple class A mobiles	Vodafone Airtouch	6.6, 7.1.5.1 & 7.2.6.2
230/00	Timing Advance handling for simple class A mobiles	Vodafone Airtouch	7.2.6.2
242/00	CR 05.02-A135 Simple class A: definition of DTM classes (R99)	Vodafone Airtouch	7.2.6.2
244/00	CR 05.02-A136 Correction to non-DRX mode (R97)	Alcatel	7.2.6.2
245/00	CR 05.02-A137 Correction to non-DRX mode (R98)	Alcatel	7.2.6.2
246/00	CR 05.02-A138 Correction to non-DRX mode (R99)	Alcatel	7.2.6.2
250/00	Optional Filtering for EGPRS LQC measurements	Nokia	7.1.5.9, 7.2.6.6
252/00	CR 05.08-A240 EGPRS LQC measurements filtering	Nokia	7.2.6.6
253/00	**CR 05.03-A036 Correction for ECSD Channel Coding**	SMG2 EDGE workshop #12	7.2.6.6
254/00	Proposed values for 05.05 ECSD receiver performance (MS)	Ericsson, Nokia	7.2.6.6
255/00	Proposed values for 05.05 ECSD receiver performance (BTS)	Ericsson, Nokia	7.2.6.6
260/00	**Link Quality Control Measurement Accuracy Requirements for EGPRS**	Ericsson	7.2.6.6
261/00	CR 05.02-A139 Clarification of non-DRX mode and (P)CCCH operation (R97)	Nokia	7.2.6.2
262/00	CR 05.02-A140 Clarification of non-DRX mode and (P)CCCH operation (R98)	Nokia	7.2.6.2
263/00	CR 05.02-A141 Clarification of non-DRX mode and (P)CCCH operation (R99)	Nokia	7.2.6.2
273/00	CR 05.05-A151 Switching Transients for 8-PSK	Siemens	7.2.6.6
276/00	Concept proposal: SMSCB operation in GPRS transfer mode	Motorola	7.2.6.2
338/00	**CR 03.64-A069 rev 2 GPRS and SMS-CB interworking**	Mannesmann	7.2.6.2

Tdoc SMG2	Title	Source	Agenda Item
348/00	**CR 05.05-A143 rev 1 Spurious emission measurement bandwidths updated to include GSM 400 systems**	Ericsson	7.2.6.8
349/00	**CR 05.05-A148 ECSD Receiver performance for MS**	Ericsson, Nokia	7.2.6.6
350/00	CR 05.02-A135 rev 1 Simple class A: definition of DTM classes (R99)	Vodafone Airtouch	7.2.6.2
351/00	**CR 05.08-A242 Intersystem handover and cell reselection**	Ericsson	7.2.6.4
352/00	**CR 05.03-A037 Correction for EGPRS channel coding**	Nortel, Nokia, Ericsson	7.2.6.6
353/00	CR 05.08-A240 rev 1 EGPRS LQC measurements filtering	Nokia	7.2.6.6
382/00	CR 05.50-A012 rev 1 Background information for requirements on TOA LMU (R98)	T1P1.5	7.2.6.1
383/00	CR 05.50-A013 rev 1 Background information for requirements on TOA LMU (R99)	T1P1.5	7.2.6.1
384/00	**CR 05.05-A149 EVM requirements for EDGE BTS transmitter with combining equipment**	SMG2 EDGE workshop #12	7.2.6.6
385/00	**CR 03.64-A069 rev 2 GPRS and SMS-CB interworking**	Mannesmann	7.2.6.2
386/00	**Proposed Liaison Statement to SMG7 on Testing of Link Quality Measurement accuracy**	SMG2 EDGE workshop #12	7.2.6.6
387/00	**Proposed Answer to Liaison Statement from SMG7 on Definition of Block Errors**	SMG2 EDGE workshop #12	7.2.6.6
388/00	**CR 05.02-A142 GPRS and SMS-CB interworking**	Mannesmann	7.2.6.2
401/00	**CR 05.08-A232 rev 1 Correction of measurement filtering for power control R99**	Ericsson	7.2.6.2
402/00	CR 05.02-A136 rev 1 Correction to non-DRX mode (R97)	Alcatel	7.2.6.2
403/00	CR 05.02-A137 rev 1 Correction to non-DRX mode (R98)	Alcatel	7.2.6.2
404/00	CR 05.02-A138 rev 1 Correction to non-DRX mode (R99)	Alcatel	7.2.6.2
406/00	**Proposed Liaison Statement on Clarification of the cell reselection for a GPRS MS**	SMG2-WPB	7.2.7
407/00	**CR 05.08-A243 Missing GSM 850 requirements for Classic BCCH**	Nokia	7.2.6.6
408/00	**Incremental Redundancy performance requirements WITHDRAWN**	Ericsson	7.2.6.6
409/00	**CR 05.09-A006 Incremental Redundancy performance requirements**	Ericsson	7.2.6.6
410/00	**Link Quality Measurement Filtering for EGPRS**	Ericsson	7.2.6.6
411/00	**CR 05.50-A016 Update of GPRS background information (R97)**	Alcatel	7.2.6.2

Tdoc SMG2	Title	Source	Agenda Item
412/00	**CR 05.50-A017 Update of GPRS background information (R98)**	Alcatel	7.2.6.2
413/00	**CR 05.50-A018 Update of GPRS background information (R99)**	Alcatel	7.2.6.2
415/00	**GERAN Timeplan for Release 2000 – 2001**	Drafting group on GERAN	7.2.6.7
416/00	CR 05.02-A143 Complete Frequency hopping on COMPACT	Ericsson	7.2.6.6
417/00	**Frequency hopping on uplink for COMPACT**	Ericsson	7.2.6.6
418/00	**Outcome of the drafting group on EDGE Receiver Performance**	Drafting Group	7.2.6.6
419/00	**Draft Liaison Statement on GERAN (GSM/EDGE) architecture. Response to Tdoc SMG2 141/00**	Drafting Group on GERAN	7.2.6.7
420/00	**Radio Requirements for the GERAN**	Drafting Group on GERAN	7.2.6.7
421/00	CR 05.08-A240 rev 2 EGPRS LQC measurements filtering	Nokia	7.2.6.6
425/00	CR 09.31-A002 rev 1 Provision of Segmentation support for LCS (R98)	T1P1.5	7.2.6.1
451/00	**CR 05.05-A150 Incremental Redundancy Performance**	SMG2-WPB	7.2.6.6
452/00	**CR 05.08-A244 Example on Link Adaptation Algorithm for EGPRS**	SMG2-WPB	7.2.6.6
453/00	**Proposed Liaison Statement to SMG7 on Testing of Link Quality Measurement accuracy**	SMG2-WPB	7.2.6.6
454/00	CR 05.05-A140 rev 1 EGPRS receiver performance for MS DCS 1800 and PCS 1900	Ericsson, Motorola, Nokia	7.2.6.6
455/00	**CR 05.05-A148 rev 1 ECSD Receiver performance for MS**	Ericsson, Nokia	7.2.6.6
456/00	**Outcome of the drafting group on EDGE Receiver Performance**	Drafting Group	7.2.6.6
457/00	CR 05.03-A038 Editorial correction to MCS-4 WITHDRAWN	Nokia, Nortel Networks	7.2.6.6
458/00	**CR 05.50-A011 rev 1 8-PSK Introduction Change Request for GSM 05.50**	Nortel Networks	7.2.6.6
459/00	CR 05.05-A101 rev 4 Transmitter/receiver performance for EDGE	SMG2-WPB	7.2.6.6
460/00	**CR 05.05-A134 rev 1 Measurement Filter for EDGE EVM**	SMG2-WPB	7.2.6.6
461/00	Open items on EDGE release 99	Rapporteur	7.2.6.6
462/00	**Proposed Liaison Statement on Twinkling replacement antennas**	Telia	7.2.6.5
463/00	**Draft Liaison Statement on the measurement requirements for GSM in UMTS**	SMG2-WPB	7.2.6.4

Tdoc SMG2	Title	Source	Agenda Item
464/00	**CR 05.02-A127 rev 1 COMPACT Change Request for GSM 05.02**	SMG2-WPB	7.2.6.6
465/00	**CR 05.08-A234 rev 1 COMPACT Change Request for GSM 05.08**	SMG2-WPB	7.2.6.6
466/00	CR 05.08-A203 rev 2 COMPACT Change Request for GSM 05.08	SMG2-WPB	7.2.6.6
467/00	**CR 05.01-A024 rev 1 on complete Frequency hopping for COMPACT**	SMG2-WPB	7.2.6.6
468/00	**CR 05.02-A143 rev 1 Complete Frequency hopping on COMPACT**	SMG2-WPB	7.2.6.6
469/00	**CR 05.08-A243 rev Missing GSM 850 requirements for Classic BCCH**	SMG2-WPB	7.2.6.6
470/00	**Draft Liaison Statement on GERAN (GSM/EDGE) architecture. Response to Tdoc SMG2 141/00**	Drafting Group on GERAN	7.2.6.7
471/00	**CR 05.05-A135 rev 1 Definition of 8PSK modulation accuracy parameters in Annex G**	Agilent Technologies	7.2.6.6
472/00	**GERAN Timeplan for Release 2000 – 2001**	Drafting group on GERAN	7.2.6.7
482/00	**CR 05.05-A151 Switching Transients for 8-PSK**	Siemens	7.2.6.6
485/00	**CR 05.02-A142 GPRS and SMS-CB interworking**	Mannesmann	7.2.6.2
486/00	**Open items on EDGE release 99**	Rapporteur	8.2.2
487/00	**Radio Requirements for the GERAN**	Drafting Group on GERAN	7.2.6.7
488/00	Liaison Statement on CR 23.122 after split in SMG2 and CN1	SMG2-WPB	7.2.6.6
489/00	**CR 05.08-A207 rev 4 Enhanced Measurement Reporting**	Nokia	7.2.6.11
500/00	**Liaison Statement on CR 23.122 after split in SMG2 and CN1**	SMG2-WPB	7.2.6.6
501/00	**CR 05.08-A233 rev 1 Enhanced Measurement Reporting for (E)GPRS**	Nokia	7.2.6.11
502/00	CR 05.08-A240 rev 3 EGPRS LQC measurements filtering	Nokia	7.2.6.6
503/00	**CR 05.05-A101 rev 5 Transmitter/receiver performance for EDGE**	SMG2-WPB	7.2.6.6
504/00	**CR 05.05-A141 rev 1Nominal Error Rate performance for 8-PSK**	SMG2-WPB	7.2.6.6
505/00	**CR 05.05-A135 rev 2 Definition of 8PSK modulation accuracy parameters in Annex G**	SMG2-WPB	7.2.6.6
506/00	**CR 05.08-A203 rev 3 COMPACT Change Request for GSM 05.08**	SMG2-WPB	7.2.6.6

Tdoc SMG2	Title	Source	Agenda Item
507/00	Revised WI description sheet (GSM 10.00); GSM in the 400 MHz bands	Rapporteur	8.2.2
508/00	**Draft Report of ETSI STC SMG2-WPB#12**	Secretary WPB	8.2.1

ANNEX D - Output of the meeting

Withdrawal of GSM 05.90 for R99 !

Tdoc SMG2 472/00 "GERAN Timeplan for Release 2000 – 2001"

Approved Tdocs for LCS

Tdoc SMG2 114/00 "CR 05.05-A236 RF requirements for TOA LMU (R98)", and

Tdoc SMG2 115/00 "CR 05.05-A237 RF requirements for TOA LMU (R99)"

Tdoc SMG2 116/00 "CR 05.05-A238 Requirements on E-OTD LMU and E-OTD MS (R98)", and

Tdoc SMG2 117/00 "CR 05.05-A239 Requirements on E-OTD LMU and E-OTD MS (R99)"

Tdoc SMG2 106/00 "CR 03.30-A009 LCS operation with repeaters (R98)", and

Tdoc SMG2 107/00 "CR 03.30-A010 LCS operation with repeaters (R99)"

Tdoc SMG2 382/00 "CR 05.50-A012 rev 1 Background information for requirements on TOA LMU (R98)", and

Tdoc SMG2 383/00 "CR 05.50-A013 rev 1 Background information for requirements on TOA LMU (R99)"

Approved Tdocs for GPRS

Tdoc SMG2 22/00 "CR 05.02-A123 PTCCH block numbering R99"

Tdoc SMG2 23/00 "CR 05.02-A124 Correction of BS_PRACH_BLKS range R97"

Tdoc SMG2 24/00 "CR 05.02-A125 Correction of BS_PRACH_BLKS range R98"

Tdoc SMG2 25/00 "CR 05.02-A126 Correction of BS_PRACH_BLKS range R99"

Tdoc SMG2 28/00 "CR 05.08-A231 Clarification of Extended Measurement requirements R99"

Tdoc SMG2 91/00 "CR05.05-A145 Relaxation of C/I performance requirement for CS4 (R97)"

Tdoc SMG2 92/00 "CR05.05-A146 Relaxation of C/I performance requirement for CS4 (R98)"

Tdoc SMG2 93/00 "CR05.05-A147 Relaxation of C/I performance requirement for CS4

Tdoc SMG2 385/00 "CR 03.64-A069 rev 3 GPRS and SMS-CB interworking"

Tdoc SMG2 401/00 "CR 05.08-A232 rev1 Correction of measurement filtering for power control R99"

Tdoc SMG2 402/00 "CR 05.02-A136 rev 1 Correction to non-DRX mode (R97)"

Tdoc SMG2 403/00 "CR 05.02-A137 rev 1 Correction to non-DRX mode (R98)"

Tdoc SMG2 404/00 "CR 05.02-A138 rev 1 Correction to non-DRX mode (R99)"