GSM Doc 226/90

ETSI-GSM
Meeting No 27
Stavanger 1990.06.11 - 15

GSM MEETING REPORT (APPROVED)

Place: Stavanger
Time: 1990.06.11 - 15
Agenda: See Annex 1
Participants: See Annex 2
Documents: See Annex 3

1 OPENING OF THE MEETING

The meeting was opened by the marketing manager of the Stavanger region of the Norwegian Telecommunications Adminstration, Mr Jan R Johansen. He told the meeting that next to Oslo, Stavanger is the region which has the highest density of mobile telephones in Norway, due to the important oil industries, for which Stavanger is the capital. Some information about the role of Stavanger in the Norwegian history was given.

2 ADOPTION OF THE AGENDA

The approved agenda appears as annex 1 to this report.

3 REGISTRATION OF DOCUMENTS

The documents listed in annex 3 were considered.

4 PT12 MATTERS

PT12 Status Report, Doc 147/90

GSM went through the report paragraph by paragraph, making the following comments and decisions:

Section 1.1.5

GSM decided that Rec 04.04 should be issued as a separate I-ETS. On the question of Recommendation Editing, GSM decided to inform the ETSI Secretariat of the risks involved in changing the existing GSM numbering scheme and the structure of the recommendations. A letter to ETSI on this subject (Doc 229/90, Rev 1) was produced.

On the PE (Public Enquiry) the meeting noted that it is up to GSM to decide to which extent the comments received during the PE will be taken into account.

Section 1.1.7

GSM noted the decision of MoU concerning the provision of the Three Party Service.

The discussion on the telefax service is reported under agenda item GSM4.

Section 3.1, PT12 11.10, 20, 40 EG

The first paragraph was found misleading. It is foreseen that Mr Hagedoorn will leave PT12 on December 31, 1990. For personal reasons, however, he will move to the Netherlands in the summer of 1990, and from the first of August he will carry out the work partly in Paris and partly in the Netherlands. Depending on his involvement in the MoU permanent resource, a part-time arrangement is expected to be established from 1st August.

The meeting was informed that Mr van der Arend will join PT12 in Paris.

Section 3.1, Conclusion

GSM endorsed the estimates on required manpower for PT12. This information will be communicated to ETSI ES.

Maintenance of the GSM Recommendations, Doc 154/90

GSM agreed on the following basic principles for the recommendation maintenance.

1 Earlier CR's which have been approved by GSM for Phase 2 implementation will be re-studied by the STC's. There is no automatic approval of these CR's. A new CR will be presented to GSM.

2 Modifications which will be introduced before Phase 2 (e g the Three Party Service) will all be related to 3.X.Y-versions.

On the Phase 2 CR-form a discussion took place on the category B changes. It was generally felt that it will not be possible to call back approved Phase 1 MS's for modification and that changes which are not MS upward compatible cannot be accepted. It was also proposed to have a more complete compatibility analysis together with the CR's instead of only filling in a box. Finally, GSM decided to change the categorization. A rev. 2 of Doc 154/90 was approved and will be distributed by PT12 in July, 1990.

Section 2.4 on clarifications to the Phase 1 standard caused a further debate. The need for a list of clarifications was questioned by some delegates, who argued that only the CR-procedure should be used. Other delegates called for a procedure of approval of the clarification statements. Strong objections were raised by some delegates to the idea of collecting information which is necessary for the correct implementation of the system outside the recommendations themselves. Other delegates stressed that ambiguities will always exist and that, if only the CR-procedure will be used, an endless process will start. Finally, GSM decided to have all these clarifications presented as CR's and dealt with on a case by case basis. Section 2.4 was deleted.

On Section 2.3 "Up-dating of recommendations" the comment was made that the proposed procedure means that the most important recommendations will have the least visibility. This is due to the obligation of GSM to follow the ETSI rules. After some discussion, GSM concluded that it was necessary to continue the up-dating of the recommendations and that the comments resulting from the PE will all go to the STC's, who will produce CR's to the latest version (not necessarily the PE-version), based on these comments.

Front sheets and Forewords, Doc 184/90

No comments were made.

CR's presented to GSM 27, Doc 156/90

No comments were made.

11-Series Status Report, Doc 147/90 Annex 1

On the problem of the wrong section II 4 of Rec 11.10 (mentioned on top of page 2), GSM decided that - in order to avoid having different versions with the same number - the version number shall be incremented and the recommendation shall be re-issued.

A document (Doc 228/90) on the scope of Rec 11.16 was produced and is to be re-discussed at GSM 28.

The proposal of Doc 199/90 was approved.

Report on the Delay Budget, Doc 171/90

It was explained that the delay budget which appears in the document applies to the full rate codec. The document and the delay budget was approved by GSM. PT12 was asked to find a suitable core recommendation where this information can be included. Also Rec 11.20 will be amended.

Rec 11.01, Version 3.0.0, CR in Doc 159/90

CR 11.01-1 r1 Decision postponed awaiting a directive from the CEC.

Rec 11.10, version 3.0.0

It has been decided earlier to merge section II.7 with section II.6. 11-series EG and GSM2 will decide on the details. The numbering of Rec 11.10 will be amended after the public enquiry.

The choice of a suitable figure for the echo return loss was discussed. GSM decided to study what figure has been chosen for DECT and how this figure has been derived.

A letter on the subject will be sent from the GSM Chairman to the Chairman of TM5. Delegates were also asked to seek information on how this problem is solved in the US and Japanese systems.

Rec 11.10, version 3.0.0, CR's in Doc 157/90

GSM went through the CR's, deciding the following:

CR 11.10-1	Approved
CR 11.10-2	Approved
CR 11.10-3	Approved (after some small amendments)
CR 11.10-4	Deferred
CR 11.10-5	Approved
CR 11.10-6	Approved

New version: 3.1.0

Rec 11.20, Version 3.0.0, CR's in Doc 158/90

Mr Hansen informed the meeting that the CR's of this document are all based on version 3.0.0. A version 3.1.0 has also been produced, but this version has not been approved by GSM. It has nevertheless been incorporated in Release 1/90. Objections were raised, in particular from industry delegates, who draw the attention to the problem of making compliance statements under such circumstances. The chairman reminded the meeting that if there is some discrepency between the 11-series rec's and the core rec's, the core rec's shall prevail.

GSM went through the CR's, deciding the following:

CR 11.20- 1 r1	Approved (with minor amendments)
CR 11.20- 2 r1	Approved
CR 11.20- 3 r1	Approved
CR 11.20- 4 r1	Approved
CR 11.20- 5 r1	Approved
CR 11.20- 6 r1	Approved
CR 11.20- 7 r1	Approved
CR 11.20- 8 r1	Approved
CR 11.20- 9 r1	Approved
CR 11.20-10 r1	Approved
CR 11.20-11	Approved

Throughout the recommendation, the references to O&M messages to be defined will be appropriately reworded.

New version: 3.2.0 This new version will be re-issued urgently.

OMEG Status Report, Doc 147/90, Annex 2

Section 2

It was pointed out that the specification of the interworking between GSM 12.20 and 12.21 is a very important task for OMEG during Phase 2.

Rec 12.04, Version 3.1.0, CR in Doc 185/90

CR 12.04-22 R3 Approved

New version: 3.2.0

Rec 12.05, Version 3.1.0, CR in Doc 186/90

CR 12.05-13 R1 Approved

New version: 3.2.0

Joint CR on A-bis Layer 3 failure indication, Doc 187/90

CR 12.05-16 Approved
CR 12.20-17 Approved

Rec 12.20, Version 3.1.0, CR's in Doc 188/90

CR 12.20-13 R1 Approved
CR 12.20-16 R1 Approved

New version: 3.2.0

Rec 12.21, Version 3.0.0, CR's in Doc 189/90

CR 12.21-01 R1 Approved
CR 12.21-03 R1 Approved

New version: 3.1.0

Rec 12.11, Version 3.1.0, Corr Note in Doc 190/90

The correction note was approved.

New version: 3.1.1

List of clarification, Doc 147/90, Annex 2

12.05	No relevance
12.06-1.3	No relevance
12.06-3.2	Approved, requesting a CR (CR 12.06-02, rev 1 in Doc 218/90)
12.06-3.3	No relevance
12.06-3.4	No relevance

New version of 12.06: 3.0.2

12.20-5.7	Approved, requesting a CR (CR 12.20-15, rev 1, in Doc 219/90)
12.20-5.8	No relevance
12.21-6.4	Approved, requesting a CR (CR 12.21-02, rev 2, in Doc 220/90)

5 STC-REPORTS AND RECOMMENDATIONS

5.1 GSM 1

Status Report of GSM 1, Doc 148/90

The following comments were made:

Section 2.7

GSM agreed to delete the services "Freephone" and "Reverse Charging".

The priority service in Doc 170/90 was endorsed by GSM and will be further elaborated by GSM1 and GSM3.

Section 3.2

Concerning the proposal to transfer some of the GSM recommendations to MoU, concern was expressed by the UK PCN operators on the possible restricted visibility and influence on those recommendations by the PCN-operators. MoU and PCN operators are discussing how to deal with this problem.

Section 3.3

Operators were urged to participate more actively in the work of GSM1. It was pointed out that the insufficient attention to the GSM1 work in some cases blocks the progress of other working bodies.

Sections 3.4 and 2.6

GSM members were asked to send delegates to the NA1 meetings in order to improve the liaison. The same applies to TC-BT (ref Doc 202/90).

Section 4

GSM 1 was asked to allocate time and resources to the work on service aspects of DCS 1800. This applies particularly to the long term scenario.

Deletion of Rec 02.23

GSM endorsed the proposal to delete Rec 02.23, since this area is mainly the responsibility of CEPT.

List of clarifications

02.11 No CR for this change only

11.11 No CR. Further study by SIMEG

02.82 OK

02.88 OK

Rec 02.01, version 3.1.0, CR's in Doc 161/90

CR 02.01-2 Approved
CR 02.01-3 Postponed

New version: 3.2.0

Rec 02.07, version 3.3.0, CR's in Doc 162/90

CR 02.07-7 Rejected
CR 02.07-8 Further consideration by MoU and GSM

New version: None

Rec 02.21, version 3.3.0, CR's in Doc 163/90

CR 02.21-6 Transferred to MoU
CR 02.21-7 Transferred to MoU

New version: None

Rec 02.24, version 3.0.0, CR in Doc 164/90

CR 02.24-1 (Phase 2) Postponed

New version:

Rec 02.30, version 3.5.0, CR's in Doc 165/90

CR 02.30-23 Postponed*)
CR 02.30-25 (Phase 2) Postponed
CR 02.30-24 Approved
CR 02.30-26 (Phase 2) Postponed

*) CR 02.30-23 was found to be strongly linked to Rec's 02.83, 02.84, 03.83, 03.84, 04.83 and 04.84, and GSM did not wish to deal with this CR separately from the concerned recommendations. The impact on Rec 11.10 was noted.

New version: 3.6.0

Rec 11.11, version 3.3.0, CR's in Doc 169/90

CR 11.11-48 Approved
CR 11.11-50 (Phase 2) Postponed
CR 11.11-49 Conditional acceptance*)
CR 11.11-51 (Phase 2) Postponed
CR 11.11-52 (Phase 2) Postponed
CR 11.11-53 Conditional acceptance*) (Doc 200/90)

*) These CR's have not been seen by SIMEG. They will be considered by SIMEG at their meeting in June. If no objections are raised, the CR's will be automatically approved. The Chairman of GSM1 and SIMEG will decide together with the Chairman of GSM, whether any modifications to the CR's can be accepted without waiting for approval of the full GSM. It was pointed out that there may be a problem with bulky card readers for the embossed cards. Doc 227/90 from the MoU stated that provision of embossed cards is a requirement from the operators.

New version: 3.4.0 (conditional)

CR's to 02.83, 02.84 and 02.86 (Doc's 166/90, 167/90 and 168/90) were postposed, pending finalization of the corresponding GSM3 rec's.

5.2 **GSM 2**

Status Report of GSM 2, Doc 149/90

On the subject of contacts with the SOCRATES project GSM noted that:

- There is no possibility to change the recommendations for the Phase 1 implementation in order to support this type of services.
- The GSM system shall aim for general purpose services rather than specific applications.
- A PMP-service of the type required for SOCRATES will open the door for a wide range of new applications potentially more important than SOCRATES itself.
- New PMP-services may be considered during Phase 2.
- GSM people will get in contact with the SOCRATES project in order to better assess what the requirements are.

GSM noted that Rec 11.10 has not been studied completely by GSM2.

<u>Possible areas of misinterpretations in GSM 2 Rec's</u>

GSM went through the list of clarification statements, deciding the following:

05.02-1 Updating in Phase 2
05.02-2 Updating in Phase 2

05.05-1 This calls for a change reqeust
05.05-2 This calls for a change request

05.05-3 Updating in Phase 2

05.08-1 Updating in Phase 2
05.08-2 Updating in Phase 2

05.10-1 Updating in Phase 2

Rec 03.30, prop version 3.0.0, Covering Note in Doc 155/90

The document was approved. It was, however, decided to turn this document into a report.

New version: 3.0.0

5.3 **GSM 3**

Status Report of GSM 3, Doc 150/90

The following comments were made:

Section 2.4

GSM noted that the two study items mentioned in the paragraph are not related to the frequency transition as it was agreed at GSM 26. However, it was agreed that GSM3 should study these areas and advise GSM of their benefits and the possible impact.

There may be a problem with the roaming, if it is required for DCS 1800 that roamers shall be accepted in certain parts of the network but not in others.

It was agreed that, if a change fits equally well to the 900 MHz system and the 1800 MHz, the change will be introduced in both systems.

Section 2.6

The rec's mentioned in this paragraph will not be presented at GSM 27.

List of clarifications, Annex 2.1

09.02 A change request was not found desirable, since these clarifications would affect a very large number of pages and they are of an editorial nature.

List of clarifications, Annex 2.2

03.03 This calls for a CR (Doc 216/90)

04.08 Dealt with in Doc 214/90

08.08 This calls for a CR

Rec 09.02, Version 3.5.1, CR's in Doc's 208/90 and 209/90

CR 09.02-82 Approved (Doc 208/90)
CR 09.02-84 Approved (Doc 209/90)

New version: 3.6.0

Rec 03.03, Version 3.4.1, CR's in Doc 216/90

CR 03.03-7 r1 Approved

New version: 3.4.2

Rec 03.09, Version 3.1.1, CR's in Doc 176/90

The correction note was noted.

New version: 3.1.2

Rec 04.08, Version 3.8.0, CR's in Doc's 180/90, 214/90 and 221/90

CR 04.08-188 Approved
CR 04.08-198 r1 Approved
CR 04.08-202 Approved
CR 04.08-206 r1 Approved
CR 04.08-207 r1 Approved
CR 04.08-181 Approved
CR 04.08-184 Approved
CR 04.08-189 r2 Approved
CR 04.08-194 r1 Approved
CR 04.08-195 Approved
CR 04.08-199 r1 Approved
CR 04.08-200 r1 Approved
CR 04.08-201 Approved

The correction note in Doc 178/90 was noted.

New version: 3.9.0

Joint CR on User Attachment, Doc 181/90

CR 04.08-208 r2 Approved
CR 04.08-209 r1 Approved

GSM noted that there is still a charging problem. The problem consists in a time difference (up to a couple of seconds) between the B-answer and the availability of a speech channel.

Rec 08.58, Version 3.4.1, CR in Doc 182/90

CR 08.58-44 Approved

The correction note in Doc 179/90 was noted.

New version: 3.5.0

Rec 04.04, Version 3.3.0, Corr Note in Doc 177/90

The correction note was noted.

New version: 3.3.1

Rec 08.06, Version 3.5.0, Corr Note in Doc 183/90

The correction note was noted.

New version: 3.5.1

Rec 08.08, Version 3.9.2

The correction note was noted (Doc 193/90).

CR 08.08-75 r1 Approved (Doc 215/90, Rev 1)

New version: 3.9.4

5.4 GSM 4

Status Report of GSM 4, Doc 151/90

On Section 2.3, GSM was informed that simulations with an increased window size have been carried out recently. The results have not yet been examined by GSM 4. However, the improvement in performance is less than expected.

<u>List of clarifications for GSM 4 recommendations</u>

All clarifications listed were considered to justify Change Requests.

Rec 08.20, Version 3.1.1, CR in Doc 205/90

CR 08.20-3 Approved

New version: 3.1.2

Rec 09.07, version 3.5.0, CR's in Doc's 206/90 and 172/90

CR 09.07-20 Approved
CR 09.07-18 Approved
CR 09.07-19 (Phase 2) Postponed

New Version: 3.6.0

Rec 07.01, Version 3.8.0, CR in Doc 207/90

CR 07.01-13 Approved

New version: 3.9.0

Facsimile problems, Doc 203/90

The problems with telefax transmission over the GSM radio path were explained. The question was raised why the facsimile service still operates satisfactorily over a satellite link, which also has a significant delay and sometimes poor quality, due to the echo control devices. No certain answers could be given, but it was thought that the reason is the fact that - in GSM - entire frames are delayed and not only single bits.

The proposed store and forward solution was explained. The idea is to totally isolate the PSTN transmission link from the GSM transmission link, i e the entire fax should be received and stored before it is transferred further down to the recepient. This differs from the 03.46-solution, which is based on two concatenated transmission links.

After an extensive debate on the matter, a proposal was drafted (Doc 213/90). Problems were found also with this proposal in so far that it seems to suggest a totally new service. The proposal was therefore rejected.

During the meeting, MoU confirmed that in their view, an end to end fax service is required. Doc's 222/90 and 223/90 were presented by the Chairman of GSM4, who stressed that in order to continue working on this subject support will be needed from the members of GSM.

Finally, GSM concluded the following:

- Rec's 03.45 and 03.46 will be withdrawn
- a real time fax service is still needed. More resources are needed for this study.
- the studies on the store and forward solution should continue
- the ETSI Secretariat will be informed about the development in order to take the appropriate action.

RLP problems, Doc's 171/90, 204/90, Rev 1, and 212/90,

It is anticipated that a 2% Block Erasure Rate will occur quite frequently in the GSM-system.

After some discussion, GSM decided that GSM2 will undertake simulations of the RLP Frame Erasure Rate on the radio interface and provide the results to GSM4 in order to enable a choice of default timer T1 setting. This will be ready before GSM 28 and the corresponding changes will be included in Phase 1. Remaining changes will be in Phase 2.

5.5 HALF RATE CODER EG

Report from the Half Rate Expert Group, Doc 192/90

The meeting discussed the possibilities for submultiplexing over the A-bis interface. It was stated that it will be possible to multiplex 4 channels on one 64 kbit connection, but not 8 channels. (This would require the codec to operate at 6 kbit/s in order to allow for some overhead.) It is not clear at this stage whether or not 5-7 channels can be multiplexed.

Comments were also made on the possibility of having a dual mode codec, e g a codec which can operate in both half rate and full rate mode. The purpose of this would be to make half rate MS products more attractive during the coverage roll-out for the half rate service and possibly also to avoid having to provide half rate coverage in all areas. It was claimed by some delegates that the extra complexity for supporting both modes is low, the main step being to go to half rate. Other delegates did not wish to see the dual mode operation as a mandatory feature, claiming that there will be a cost and quality penalty for this feature, that the optimization should not aim to meet a transitional need, and that the network planning problems should not be solved in the MS's.

It was stated by most delegates that the first criteria is the quality aspect.

It was further noted that it will always be possible to have dual mode MS's, even if the codec itself does not operate in dual mode.

The meeting concluded that GSM asked the Half Rate Group to continue their work, giving first priority to the quality aspect. The views of MoU on the desire of the dual mode codec will be sought.

The meeting was informed about a new standardisation project within CCITT SG XII on a 8 kbit/s codec. The requirement on this codec is that it shall be equal to the 32 kbit/s AD-PCM, i e better than the GSM full rate codec. The codec is scheduled to be available in 1994.

The problem of funding a host laboratory for testing was touched upon. It was suggested that this activity should be funded by ETSI. Several speakers were reluctant to this arrangement due to the extra administrative burden.

GSM noted that there is a discussion in the Half Rate Group on the choice between a bit exact description and a functional specification. Functional specifications are used in both USA and Japan, meaning that there must be a solution to the testing problem. The Half Rate Group does not wish to take a decision on this point before a corresponding decision in CCITT is taken for the 8 kbit codec. This decision is scheduled for October 1990.

Concerning the IPR-issue, the meeting was informed that the IPRC is in the stage of finalizing its work and that the relevant agreements will be available after the next TA in the beginning of July.

6 FUTURE WORK

6.1 Phase 2 activities

GSM program for Phase 2, Doc 191/90

The following comments were made:

Section 1

The proposed phasing was endorsed by GSM.

Section 3

Comments were made on some of the items mentioned in the list of Phase 2 tasks and the mile stones. GSM agreed that it is desirable to complete the tasks in packages. A few tasks need to be finalized at a very early stage, e g the half rate codec, the RLP, the facsimile service, the Three Party Service and Advice of Charge. It is desirable that the packages are logically composed.

MoU view on the GSM Phase 2 work, Doc 201/90

Various comments were made to the list of the documents. The view was expressed that GSM must seek liaison with other ETSI groups (CES and RES) for some of the tasks mentioned in item 4.

6.2 DCS 1800 activities

The PCN operators' view on DCS 1800 Phase 2 activities, Doc 217/90

The possibility of the local routing of traffic to the PSTN was raised. It was noted that GSM has decided earlier not to change the structure of the GSM-system. The local connection, mentioned in item 4, must thus be made via a small MSC, and the feasibility of this approach was left as an item for study.

Finally, the Chairman proposed that all the lists of tasks for Phase 2 and DCS 1800 should be merged together and that the responsible STC's shall be identified, as well as the completion date.

6.3 Further activities

Problems are expected with the supplementary services in so far that several supplementary services are scheduled to be defined by GSM1 after completion of the MAP. Besides, the definition of supplementary services are supposed to be harmonized with those of NA1.

There is a general need to define the priorities not only for the services but also for other functions.

To this end, a meeting will be arranged in the beginning of July in order to define the priorities for future activities and to deal with the SOCRATES question. Participants: GSM Chairman, STC Chairmen, PT12-coordinator, MoU Chairman and one representative of the UK PCN operators.

7 ACTION PLAN, Doc 153/90

An updated version of the action plan, including the results of GSM 27, will be produced as soon as possible. Several delegates expressed their appreciation of this document.

8 MEETING SCHEDULE

GSM 28	1990.10.01 - 05	Athens
GSM 29	1991.01.14 - 18	Berlin
GSM 30	1991.03.11 - 15 (or 03.18 - 22)	?

9 ANY OTHER BUSINESS

Frequency bands, Doc 197/90

The attention was drawn to an apparent misunderstanding by the FM-group that DCS 1800 is not intended to be a pan-European system. Besides there seems to be a contradiction in the letter from the FM-group. A reply (Doc 225/90) was sent to CEPT FM.

GSM took note of Doc's 194/90, 198/90 and 211/90.

10 REPORT OF THE MEETING

The report of the meeting was corrected and approved.

11 CLOSING OF THE MEETING

The Chairman thanked the Norwegian Administration, the secretarial staff and the local hosts in particular for the excellent meeting arrangements and for providing the opportunity for a pleasant stay in Stavanger.

Annex 1

ETSI-GSM
Meeting no 27
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AGENDA

1 OPENING OF THE MEETING

2 ADOPTION OF THE AGENDA

3 REGISTRATION OF DOCUMENTS

4 PT12 MATTERS

5 STC-REPORTS AND RECOMMENDATIONS

6 FUTURE WORK

6.1 Phase 2 activities

6.2 DCS 1800 activities

7 ACTION PLAN

8 MEETING SCHEDULE

9 ANY OTHER BUSINESS

10 REPORT OF THE MEETING

11 CLOSING OF THE MEETING

ETSI/GSM NO 27
Stavanger 11th-15th June, 1990

LIST OF PARTICIPANTS
(Final)

Austria	Peter Donat, Siemens AG Johann Pichler, PTT Austria
Belgium	Erik Rijks, ATEA NV Jean Vosters, Alcatell Bell Bernard Feuillen, Belgian Regie T.T-CT Gert Verhoeven, Uniden Europe NV Claude Barraud, Sony Telecom
Denmark	Arne Foxman, Statens Teletjeneste Flemming Hansen, Storno A/S Eivind Ting Mortensen, Teleinspektionen
F R of Germany	Karl Helmut Lehnich, Ectel/TMS-SEL Ansgar Bergmann, Detecon Frieder Pernice, Detecon James Petit, Mannesmann Mobilfunk Helmut Guenter, Philips Komm Industrie Manfred Grenzhauser, Siemens AG Paul Guels, Robert Bosch Hans-Joachim Bergs, SEL-Alcatel
Finland	Sauli Salo, Nokia Cellular Systems Pertti Lukander, Omnitele Timo Moilanen, P&T Tele Timo Ali-Vehmas, Nokia Mobile Phones Risto Pitkaenen, Nokia Mobile Phones Harri Honkasalo, Nokia Mobile Phones Jouho Rosenberg, Telecom Finland

France	Didier Verhulst, Alcatel Radiotelephone Christian Vernhes, CNET PAA/CER/SSR Thomas Remi, CNET PAA/RDS/RCM Alain Maloberti, CNET PAB/SHM Dave Freeman, ETSI Bernd Haarpainter, ETSI Bjoern Nilsen, ETSI Eike Haase, ETSI Francois Courau, ETSI Jonas Twingler, ETSI Rijnder Hagedoorn, ETSI Bernard Ghillebaert, France Telecom Marie-Bernadette Pautet, France Telecom Martine Alvernhe, France Telecom Michel Mouly, MATRA Communication Jean-Jacques Davidian, Societe Francaise du Radiotelephone Philippe Michau, Thomson-CSF/DTC
Greece	Yiannis Vassilaras, OTE SA
Hong Kong	Bruce Hicks, Hutchison Telephone
Ireland	John P Moran, Telecom Eireann
Italy	Paolo Cappiello, Alcatel Industrie Fausto Valerio, FATME Paolo Del Carratore, Marconi Italiana Antonio Vellucci, Ministero PP.TT Franco Grimaldi, SIP Direzione Generale Garibaldi Conte, SIP/DG Renato Ansaldi, Siemens TLI Ermanno Turco, Italtel SIT Chistiano Casati, Telettra
The Netherlands	Rob Bennink, PTT Telecom Martin Lossie, AT&T Network Systems Int Joseph I McCarthy, ATT Network Systems Int J F Raatgever, AT&T-NSI Netherlands Dick Hoefsloot, PTT Telecom BV
Norway	Helen Sandberg, Teledirektoratet Petter Bliksrud, Teledirektoratet Stein Hansen, Televerkets Forskn Inst Nina Danielsen, Teledirektoratet Geir Trøan, Teledirektoratet Olav Omtveit

Portugal	Orlando Reis Luis, CTT Portugal Manuel Luis Aquiar, TLP
Spain	Juan Antonio Moreno, Telefonica J Lombao, Telefonica
Sweden	Gunnar Sandegren, Ericson Radio Systems Per Bjoerndal, Ericsson Telecom AB Thomas Haug, Swedish Telecom Gunnar Fremin, Swedish Telecom Radio Thomas Beijer, Swedish Telecom Radio Endre Fabo, Comvik AB Kerstin Holger, Swedish Telecom Radio Carina Marmstål, Swedish Telecom Radio
Switzerland	Rolf Klingler, Swiss PTT Rudolf Erb, Swiss PTT
United Kingdom	David Cheeseman, Brit Telecom Research Labs David M Barnes, DTI Thomas Forsyth, Mercury PCN Graham Crisp, GPT Ltd Nicholas R Winch, GPT Ltd Russel Black, Mercury Comm Barry West, Mercury PCN Yasukazu Katayama, Mitsubishi Electric Andrew Athanasopulos, Orbitel Mobile Comm Andrew Watson, Motorola Alan Cox, Racal Vodafone Ltd Ian Harris, Racal Vodafone Ltd Alan D Hadden, Unitel Ltd Philip Gaskell, Unitel Ltd J J Kozminski, Cellnet R W Rowe, British Aerospace Kevin Baughan, Northern Telecom Ken Hall, Cellnet J T L Sharpe, NEC Bernard Mallinder, British Telecom

List of documents for ETSI/TC GSM Meeting no.27 Stavanger, Norway

Doc nr.	Rev	Title	Source
147/90		PT12 Status Report	PT12
148/90		GSM1 Status Report	PT12
149/90		GSM2 Status Report	PT12
150/90		GSM3 Status Report	PT12
151/90		GSM4 Status Report	PT12
152/90		GSM Meeting Calender	PT12
153/90		GSM Action Plan	PT12
154/90	r1	Maintenance of GSM Recommendations "Change Request" Procedures	PT12
155/90		Covering note to Recommendation GSM 03.30 proposed version 3.0.0	GSM2
156/90	r1	List of Change Requests for GSM27	PT12
157/90		CR 11.10-1..-6	PT12-ES
158/90		CR 11.20-1..-11	PT12-ES
159/90		CR 11.01-1 rev 1 on Marking of Type Approved Equipement with the GSM Logo	MoU
160/90		Changes in Recommendation GSM 04.80 for support of CALL WAITING and CALL HOLD	GSM3
161/90		CR 02.01-2, -3 on Definition of Busy in a PLMN	GSM1

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Doc nr.	Rev	Title	Source
162/90		CR 02.07-7, -8 on Polarisation mark for SIM	GSM1
163/90		CR 02.21-6, -7 on Taxes in the transfered account	GSM1
164/90		CR 02.24-1 on Advice of Charge	GSM1
165/90		CR 02.30-23..-26 on MMI for Supplementary services and MMI codes for Basic Services	GSM1
166/90		CR 02.83-26, -27 on Call Waiting and Call Hold	GSM1
167/90		CR 02.84-2 on Three Party Service	GSM1
168/90		CR 02.86-2 on Advice of Charge	GSM1
169/90		CR 11.11-48..-52 on Data Transmission (ISO 7816-3), Embossing of SIM cards, Tolerance of dimensions	GSM1
170/90		Covering note to Recommendation GSM 02.89 proposed version 1.0.0 Priority Service	GSM1
171/90		Report of the GSM ad hoc meeting on the delay budget	Ad hoc Group
172/90		CR 09.07-18, -19 on Bearer Capability mapping	GSM4

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173/90		Correction Note to Recommendation GSM 03.46 version 3.0.0	PT12
174/90		Covering note to Recommendation GSM 03.83 version 2.0.0	GSM3
175/90		Covering note to Recommendation GSM 04.83 version 2.0.0	GSM3
176/90		Correction Note to Recommendation GSM 03.09 version 3.1.1	PT12
177/90		Correction Note to Recommendation GSM 04.04 version 3.3.0	PT12
178/90		Correction Note to Recommendation GSM 04.08 version 3.8.0	PT12
179/90		Correction Note to Recommendation GSM 08.58 version 3.4.1	PT12
180/90		CR 04.08-188, -198, -202, -206, -207	PT12
181/90		Joint CR to GSM 04.08 on User attachment (CR 04.08-208, -209)	PT12
182/90		CR 08.58-44 on Clarification for Timing Advance	PT12
183/90		Correction Note to Recommendation GSM 08.06 version 3.5.0	PT12

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184/90		Frontsheets and forwords provided by ETSI for GSM Recommendations when sent for PE	PT12
185/90		CR 12.04-22 r3 on Measurement on radio channels	PT12-OMEG
186/90		CR 12.05-13 r1 on Timestamps to be applied in call records	PT12-OMEG
187/90		Joint CRs on A-bis layer 3 failure indication (CR 12.05-16, CR 12.20-17 r2)	PT12-OMEG
188/90		CR 12.20-13 r1, -16 r1 on Conformance and Application Contexts Performance measurement types	PT12-OMEG
189/90		CR 12.21-01 r1, -03 r1 on "Load Data Received" message Message coding	PT12-OMEG
190/90		Correction Note to Recommendation GSM 12.11 version 3.1.0	PT12
191/90		GSM programme for phase 2 (revision of Tdoc GSM 83/90)	PT 12
192/90		1/2 Rate Codes EG - Status Report	Chairman TCH/HS
193/90		Correction Note to Recommendation GSM 08.08 version 3.9.2	PT12

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Doc nr.	Rev	Title	Source
194/90		Letter to Mou Concerning Time Scedule for GSM	ECTEL-TMS
195/90		Reply to GSM Tdoc 414/89 r2 "Availability of GSM Half-Rate Coder" Dated March 90	Chairman TM3/TCH-HS
196/90		Reply to GSM Tdoc 414/89 r2 "Availability of GSM HAlf-Rate Coder" Dated May 90	Chairman TM5/TCH-HS
197/90		Designation of Frequency Bands for DCS 1800	CEPT FM-Group
198/90		Release date for DCS1800 Specifications	UK PCN Operators
199/90		Elaboration of DCS 1800 Eleven Series Issues	UK PCN Operators
200/90		CR 11.11-53 on IC card identification	DETECON and al.
201/90		GSM Work in Phase 2 of GSM 900 / DCS 1800	MoU
202/90		Liaison with ETSI/TC BT	G.Chrisp
203/90		Summary of Facsimile group 3 problem	Racal Vodafone
204/90	r1	Summary of the effect of transit delays on RLP	Racal Vodafone
205/90		CR 08.20-3 on Rate adaptation for non-transparent services	GSM4

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206/90		CR 09.07-20 on Alternate services	GSM4
207/90		CR 07.01-13 on BC elements	GSM4
208/90		CR 09.02-82 on Handling of not implemented operations	GSM3
209/90		CR 09.02-84 on Wrong type for parameter	GSM3
210/90		Covering Note to Recommendation GSM 11.10 Section II.4	PT12
211/90		Transfer of Recommendations to GSM-MoU	UK PCN Operators
212/90		Radio Link Protocol	Chairman GSM4
213/90		Group 3 Facsimile	Chariman GSM4
214/90		CR 04.08-181, -184, -189r2, -194r1, -195, -199r1, -200, -201r1	GSM3
215/90	r1	CR 08.08-75 on Missing bit	GSM3
216/90	r1	CR 03.03-7 rev 1 on Bitordering	GSM3
217/90		Phase 2 tasks for DCS 1800	UK PCN Operators
218/90		CR 12.06-2 rev 1 on Configuration data in BSS	PT12-OMEG

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219/90		CR 12.20-15 rev 1 on Syntax correction of type definition	PT12-OMEG
220/90		CR 12.21-2 rev 2 on Coding of "Immediate action"	PT12-OMEG
221/90		CR 04.08-200 rev 1 on Status message sending	GSM3
222/90		Group 3 Facsimile	Chairman GSM4
223/90		Support of facsimile Group 3 in the GSM environment	Chairmen GSM GSM4
224/90		Equipment Identity Register	MoU
225/90		Letter to CEPT-FM on Designation of frequency bands	GSM
226/90		Report of the meeting no 27	GSM
227/90		Letter to GSM on Embossing of SIM cards	MoU
228/90		On the scope of Recommendation GSM 11.16	Ad hoc group
229/90		Letter to ETSI on numbering of recommendations	GSM