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## AFFIDAVIT OF CHRISTOPHER BUTLER

1. I am the Office Manager at the Internet Archive, located in San Francisco, California. I make this declaration of my own personal knowledge.

2. The Internet Archive is a website that provides access to a digital library of Internet sites and other cultural artifacts in digital form. Like a paper library, we provide free access to researchers, historians, scholars, and the general public. The Internet Archive has partnered with and receives support from various institutions, including the Library of Congress.

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5. The Internet Archive assigns a URL on its site to the archived files in the format `http://web.archive.org/web/[Year in yyyy][Month in mm][Day in dd][Time code in hh:mm:ss]/[Archived URL]`. Thus, the Internet Archive URL `http://web.archive.org/web/19970126045828/http://www.archive.org/` would be the URL for the record of the Internet Archive home page HTML file (`http://www.archive.org/`) archived on January 26, 1997 at 4:58 a.m. and 28 seconds (1997/01/26 at 04:58:28). A web browser may be set such that a printout from it will display the URL of a web page in the printout's footer. The date assigned by the Internet Archive applies to the HTML file but not to image files linked therein. Thus images that appear on a page may not have been archived on the same date as the HTML file. Likewise, if a website is designed with "frames," the date assigned by the Internet Archive applies to the frameset as a whole, and not the individual pages within each frame.

6. Attached hereto as Exhibit A are true and accurate copies of printouts of the Internet Archive's records of the HTML files for the URLs and the dates specified in the footer of the printout.

7. I declare under penalty of perjury that the foregoing is true and correct.

DATE: 6/8/17

  
\_\_\_\_\_  
Christopher Butler

CALIFORNIA JURAT

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See Attached Document.

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

State of California  
County of San Francisco



Subscribed and sworn to (or affirmed) before me on this

8<sup>th</sup> day of June, 2017, by

Christopher Butler,

proved to me on the basis of satisfactory evidence to be the person who appeared before me.

Signature: Laurel Karr

# Exhibit A



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## 3GPP Frequently Asked Questions

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## ANSWERS

### 1. Membership

#### 1.1 Who can become an Individual Member of 3GPP and how much does it cost ?

Individual Members are by definition members of the [Organizational Partners of 3GPP](#). This means that members of standardization bodies such as ETSI, ARIB, TTA, TTC, T1 and CCSA have a right to take part in 3GPP. There are no fees payable directly to 3GPP. However, the funds required for the running of 3GPP are collected from the Organizational Partners and you may be required to contribute in some way through that route.

If you are not a member of one of the above Standardization bodies then you can find links to these bodies from the [3GPP home page](#).

If you require further guidance on how to participate in 3GPP activities you should contact the [Mobile Competence Centre](#).

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#### 1.2 Who may participate in 3GPP meetings ?

To attend a 3GPP meeting, you must be a 3GPP Individual Member (i.e. you must be a Member of one of the Organizational Partners involved in the project; ARIB, CCSA, ETSI, T1, TTA or TTC. A non-member company should seek membership with one of the above partners to be eligible to contribute and participate at 3GPP Meetings.

#### 1.3 Who shall fill in the 3GPP Individual Member Application form ?

The person legally responsible for the requesting company shall fill in the form.

#### 1.4 What shall I do if a 3GPP company or official contact details change?

All changes of correspondence should be notified to [3GPPContact@etsi.org](mailto:3GPPContact@etsi.org)

#### 1.5 Different membership categories ?

The different membership categories of 3GPP are described in Section B of the 3GPP Working Procedures.

#### 1.6 Who may become an observer ?

#### 1.7 Who may become a Guest Member and do guests have to pay any fees ?

The Guest Status is for potential Individual Members who may be granted permission to participate in 3GPP for a maximum period of 6 months. Guest status is granted on a case-by-case basis by the Organizational Partners (see also Working Procedures Article 10). If you like to apply for a Guest status, please send an email to [3GPPContact@etsi.org](mailto:3GPPContact@etsi.org)

No membership fees are requested for Guest applications.

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### 1.8 Who can apply for market representative Partnership?

### 1.9 Can an ETSI Observer become an Individual Member of 3GPP ?

NO, an ETSI Observer may "observe" all activities, but their participation is limited to the ETSI General Assembly only. Therefore, ETSI Observers have no participation rights in 3GPP. ETSI Observers have access to ETSI documentation and of course to 3GPP documentation since that is openly published on the web.

3GPP does have it's own category called "Observer" but that is entirely different and is used for potential Partners.

### 1.10 Can an ETSI Applicant apply for 3GPP Membership ?

YES, an Applicant means that your request to become an ETSI Member will be approved at the next General Assembly. You can participate in 3GPP as soon as the ETSI application has been processed and you are flagged as a Candidate Member (i.e. there is no need to wait until the next GA).

### 1.11 My company is already an ETSI Member, what do I have to do to join 3PP and do I have to pay any fees ?

As an ETSI member your company is eligible for a 3GPP Individual Membership and you will be able to attend any of the 3GPP Meetings. Please fill in the on-line 3GPP Application form and your company will be then listed on the 3GPP Website (add link to the form)

There are currently no additional costs involved for participation in 3GPP (the membership fees for ETSI covers the cost of 3GPP participation).

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## 2. 3GPP email exploder lists

### 2.1 Are there discussion archives for the 3GPP exploder lists ?

The home page of listserv is at: <http://list.3gpp.org/scripts/wa.exe>

Then, just follow the links to the archives. For example, the archives for the main RAN email list can be found at:

[http://list.3gpp.org/archives/3gpp\\_tsg\\_ran.html](http://list.3gpp.org/archives/3gpp_tsg_ran.html)

### 2.2 How do I subscribe to the 3GPP exploder lists ?

follow the instructions found on this page: [http://www.3gpp.org/Discussion\\_Lists/mailling.htm](http://www.3gpp.org/Discussion_Lists/mailling.htm)

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## 3. Legal Matters

### 3.1 What is the 3GPP IPR Policy ?

The 3GPP Organizational Partners have agreed that their IPR policies should be respected and that their respective members should be encouraged to declare "their willingness to grant licenses on fair reasonable terms and conditions and on non discriminatory basis" (Article 3.1 of the Third Generation Partnership Project). For more information [Look Here >>>](#)

The above-mentioned principles are further reflected in [Article 55 of the 3GPP Technical Working Procedures](#) which request that each Individual Members should declare "at the earliest opportunity, any IPR which they believe to be essential, or potentially essential, to any work ongoing within 3GPP".

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### 3.2 What is the 3GPP policy on licensing ?

Some aspects of 3GPP systems are covered by essential Intellectual Property Rights (IPR) - that is, patented technologies without which equipment cannot be implemented. The IPR vests in - i.e. the patents are held by - individual companies, and not by 3GPP itself or any of its [Organizational Partners](#) (OPs). All Individual Members of 3GPP abide by the IPR policies of the OP to which they belong; all such policies are broadly similar (see [FAQ 3.1](#)), and require IPR holders to make licences available to all third parties, whether or not they are 3GPP Individual Members, under fair, reasonable and non-discriminatory (FRAND) terms.

Neither 3GPP nor its component OPs offer an IPR search service. It is the responsibility of each manufacturer / system implementor to seek and obtain its own licences from the individual IPR holders.

For more information, and a guide to the IPRs declared to each 3GPP OP, [look here >>>](#)

(Answer drafted 2005-09-12 by JMM.)

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### 3.3 What is the 3G Patent Platform ?

On the fringe of standardization activities some telecom companies have set up a voluntary arrangement for the licensing of essential patents required to meet the standards published for 3G systems has emerged.

Please find a historical recap of the creation of the 3G Patent Platform. Thank you to note that Phase 3 has not started yet.

1. Discussions started in the UMTS IPR working Group (1998).
2. The UMTS IPR working group operated within the UIAP (UMTS Intellectual Property Association) to define the functions of the 3G Patent Platform.

The 3G Patent Platform will provide services for:

- - Evaluating,
- - Certifying and,
- - Licensing

essential patents for 3G Mobile communications.

3. Implementation of the 3G Patent Platform scheme.

The 3G Patent Platform will operate within a new profit service company governed by the members (essential patent holders and licensees). As of today this NEW CO is not operational since it is waiting for the approval of the US/EC/Japanese competition law authorities in order to launch the above-described activities.

More information is to be found at <http://www.3gpatents.com/>

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### 3.4 Is it true that a number 3GPP members are looking at setting up a patents cooperative, with the aim of reducing the royalties they pay each other for the use of patented technology in third-generation mobile systems ?

- Discussion started in the UMTS IPR working Group (1998),
- Creation of the UIAP (UMTS Intellectual Property Association) which has performed the function of the definition the 3G Patent Platform scheme (Evaluation of a patent, certification of essentiality, licensing arrangements, etc.) and which is the legal owner of the 3G Patent Platform Specification.
- Implementation of the scheme:

As of today NEW CO (implementing the 3G Patent Platform) has not be incorporated and the Patent Platform scheme is not operational as it is awaiting for the approval of the US/EC competition law authorities.

ETSI follows the development of the 3G Patent Platform but, as a neutral standard body, cannot take an active participation in this market initiative.

### 3.5 Who owns the Technical Specifications and the Technical Reports approved by 3GPP ?

According to the Article 3.2.2 of the Third Generation Partnership Project Agreement, the 3GPP Organizational Partners jointly own copyright on the Technical Specifications and the Technical Reports approved by 3GPP.

### 3.6 Does a company implementing a product based on the 3GPP specifications have to pay any royalties to the 3GPP organization ?

The Third Generation Partnership Project is not a legal entity but a Partnership Project between different standardization organizations in the field of telecommunications.

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### 3.7 Is permission needed to use the 3GPP logo in marketing collaterals or on a web site ?

ETSI (European Telecommunications Standards Institute) is the sole owner of the following acronyms:

- ETSI,
- DECT,
- UMTS,
- 3GPP and
- TIPHON,

as well as the ETSI, TIPHON and 3GPP logos. ETSI Members shall use these Trade Marks in accordance with Collective Letter 1943. Authorization is needed to use the above mentioned acronyms and logos.

For further information please contact : [3GPP Legal](#)

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### 3.8 Can I use computer code included with a 3GPP TS to implement a product ?

Yes. Some 3GPP Technical Specifications include computer code such as ASN.1 or XML (protocols), C language (codecs), ...; and some include test patterns (codecs) for verifying implementations. These are published to allow users of these TSs to implement real-world products. No permission is required from 3GPP or its [Organizational Partners](#) (OPs) to use this code in the design of products - e.g. to compile the C to implement a codec in machine code.

Nevertheless, there may be essential IPR involved with such a design, and implementors are obliged to seek licences to use that technology. See [FAQ 3.2](#).

Moreover, the copyright of all 3GPP TSs and TRs vests jointly by all the 3GPP OPs. Other than for in-house copies for the purpose of further development of the 3GPP standard or for product design purposes, etc. you may not reproduce any part of a 3GPP TS or TR without seeking permission: use the form

available [here](#). This means that you must not provide verbatim copies of *source* code (or lightly modified copies) without seeking permission from 3GPP.

Finally, you are reminded that 3GPP TSs and TRs have no legal status, and you should not design products directly to them. See the advice notice on the cover page of every 3GPP TS and TR. Instead, use [the technically identical publication of one of the OPs](#).

(Answer drafted 2005-09-12 by JMM.)

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#### 4. Specifications

##### 4.1 Where can the rules, protocols or software needed to develop applications for UMTS be found ?

A good place to start is on the 3GPP website <http://www.3gpp.org>, and particularly the specifications list at <http://www.3gpp.org/specs/specs.htm>.

Look at the titles of the specs for those which are appropriate. Perhaps 21.111, 31.102 and 31.111 might be relevant.

##### 4.2 What is the correlation between Stage 1, Stage 2 (GSM 3.90 and GSM 02.90) and Phase 1, Phase 2 ?

The "stage" nomenclature was an ancient CCITT invention, related to ISDN standardisation. "Stage 1" refers to the service description from a service-user's point of view. "Stage 2" is a logical analysis, breaking the problem down into functional elements and the information flows amongst them. "Stage 3" is the concrete implementation of the protocols between physical elements onto which the functional elements have been mapped.

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##### 4.3 Is there any simple guide to the different CAMEL specifications ?

Unfortunately there is no single document acting as a guide to the CAMEL standards. Initial plans were published in ETSI ETR 244 in 1995, though this is so old as to be more or less useless now. GSM 10.78 is the CAMEL project plan, and this is probably the best thing. This may have been available as a temp doc to SMG meeting no. 25, but is still only in draft form, and has never been made publicly available.

In the SS7 arena,

GSM 02.78 / UMTS 22.078 is the Stage 1 (requirements) document.

GSM 03.78 / UMTS 23.078 is the Stage 2 (functions, conceptual data flow)

GSM 09.78 / UMTS 29.078 is the Stage 3 (protocol) - CAMEL Application Part (CAP)

CAP has been released in several phases:

Release 1996 = Phase 1

Release 1997 = Phase 2

Release 1998 = Phase 2

Release 1999 = Phase 3 (GSM and UMTS common spec)

For UMTS, 21.978 is a feasibility study on CAMEL control of Voice over IP.

In the Intelligent Network area, CAMEL is an extension of Core INAP, under the control of ETSI SPAN3 (formerly SPS3) - ignore for simplicity the Stage 1 and Stage 2 specifications, which were under ETSI SPAN6 (formerly NA6). Core INAP was released in several phases:

CS1 = ETS 300 374 series,

CS2 = EN 301 140 series,

CS3 = EN 301 931 series.

It had originally been intended to split CS3 into two releases, and also to produce a CS4. These plans now seem to be on hold. The ETSI phasing of the various Capability Sets was not strictly aligned with the ITU-T "equivalents", and this was a source of some confusion. For further information on SPAN please contact : [spansupport@etsi.org](mailto:spansupport@etsi.org) Very recently, SPAN has been reorganised, and SPAN3's work is now to be found within SPAN12.

IN CAMEL phase 1 is an enhancement of Core INAP CS1. The protocol is defined in the ETSI EN 301 152 series, which is a "delta" to ETS 300 374, and assumes a CAP according to GSM 09.78 v5.5.x (Phase 2+, Release 1996). IN CS3 includes CAMEL aspects (which were ignored for IN CS2).

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##### 4.4 Where are the specifications which identify the Vcc voltages for the SIM interface ?

3V and 1.8 V SIMs for GSM are specified in GSM 11.12 (phase 2) and GSM 11.18 (release 98) respectively.

However, in 3GPP we have developed a new specification (3G TS 31.101) which combines the physical/electrical/logical aspects of GSM 11.11, GSM 11.12 and GSM 11.18 into a single specification. The electrical and physical aspects have not really been changed compared to the GSM specification mentioned above (the logical and security aspects have been enhanced). It is recommended that you use this new specification as the basis for any new work.

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##### 4.5 Are the 3GPP specifications produced only in word ?

The 3GPP specs are published as ETSI deliverables, and these are available in PDF from <http://www.etsi.org/key>. But you can download a free Word viewer (ie read only) from the Microsoft web site. PDF is inherently secure (more so than html, in fact), and because WordViewer is very simple (it can not handle macros, for example), it is pretty safe too.

ETSI has no plans at present to publish specifications in plain text or in html.

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#### 4.6 Which group works with specifications covering the use of the GSM codec (either in C or Java based) ?

The SMG11 and 3GPP SA4 specifications available from <http://www.3gpp.org> respectively deal with this. It gives you a list of specifications via the status list (look for the GSM specs in the MS-Access database at : and you can then download the specs you need. If you do not have an ETSI EOL account, you can download the ETSI equivalent standards from <http://www.etsi.org/key> .

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#### 4.7 Does the ETSI GSM standard document collection also include GSM standard documents produced by the GSM Association and exactly what kind of GSM standards does ETSI produce ?

The GSM specifications were originally started in committee GSM of CEPT. There (as "CEPT Recommendations") they were allocated a reference number of the form nn.nn, for example GSM 06.12. Even after transfer to ETSI about ten years ago, the GSM community (in Technical Committee SMG) continue to use these spec identifiers.

The specifications are grouped into 'Releases'. The original specifications were published by ETSI in 1994 and are now known as 'Phase 1'. The next release was known as 'Phase 2', and the next one as ... 'Phase 2+'. Within Phase 2+, there have been annual releases since 1996, which are known as R96, R97, R98 and R99. You can find the specifications on the SMG file server <http://docbox.etsi.org/tech-org/smg/Document/smg/specs/> grouped into directories by Release. (You need an account on the ETSI server to have access to this directory.) Looking at a spec, you can tell which release it belongs to by the version number:

version release

3.x.x	Phase 1
4.x.x	Phase 2
5.x.x	Phase 2+, R96
6.x.x	Phase 2+, R97
7.x.x	Phase 2+, R98
8.x.x	Phase 2+, R99

There will (probably) not be a Release 2000, since the work has been subsumed by the third generation specifications under 3GPP.

All (nearly) the specs of all releases are published as ETSI deliverables, and most have undergone several revisions in each release. In order to match a GSM spec number and version with the corresponding ETSI deliverable, you should go to <http://www.etsi.org/key/> .

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#### 4.8 Where would I find a document (e.g. UMTS 30.03 version 3.1.0) which does not appear on the 3GPP Status List?

Look at [http://docbox.etsi.org/tech-org/smg/Document/smg/specs/UMTS/3003\\_320.zip](http://docbox.etsi.org/tech-org/smg/Document/smg/specs/UMTS/3003_320.zip) but, an ETSI server account is needed to access this. It is a document stemming from the initial TC-SMG studies on UMTS, not a product of 3GPP. It was, in fact, published as an ETSI deliverable, TR 101 112, and this may be downloaded via <http://pda.etsi.org/pda>.

In general, the cross-referencing between GSM and ETSI deliverables, and between 3GPP and ETSI deliverables may be found at <http://www.etsi.org/key>

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#### 4.9 Where are all the Change Requests (CRs) located ?

The information on CRs is available via the 3GPP website at this address:

<http://www.3gpp.org/ftp/Specs/html-info/>

The information is classed by series so it is very easy to locate the particular specification which interests you.

If, for example, you are looking for CRs on GSM 08.18 then you would use this link:

<http://www.3gpp.org/ftp/Specs/html-info/0818-CRs.htm>

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#### 4.10 Where are all the current ETSI SMG specs located ?

All the archives for the GSM documentation may be found here:

<http://docbox.etsi.org/zarchive/SMG/>

An ETSI On-Line account is needed to access these documents. You can apply for an ETSI online account via: <http://webapp.etsi.org/createaccount/>

In general, the cross-referencing between GSM and ETSI deliverables, and between 3GPP and ETSI deliverables may be found at: <http://webapp.etsi.org/key/queryform.asp>

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#### 4.11 Which group works on the W-CDMA and the Physical Layer of W-CDMA ?

The radio aspects are standardised in TSG-RAN. The technical work is done in the 4 Working Groups of RAN (WG1 radio layer 1, WG2 radio layer 2/3, WG3 interfaces, WG4 RF measurements). I'd say you are interested in TSG-RAN WG1 then. Their specifications are numbered 25.2xx. The temporary documents (meeting documents etc.) of WG1 are stored on [ftp://ftp.3gpp.org/TSG\\_RAN/WG1\\_RL1](ftp://ftp.3gpp.org/TSG_RAN/WG1_RL1) and the latest specifications (December 99) are or will be provided on [ftp://ftp.3gpp.org/Specs/December\\_99/25\\_series](ftp://ftp.3gpp.org/Specs/December_99/25_series).

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#### **4.12 Where can I find the list of Abstract syntax notation (ASN.1) object identifiers?**

The expandable list of object identifiers is available [here >>>](#). To see the formal definition of the object identifiers, see the document cited on the right. The tree is not necessarily complete; further extensions may be included in the referenced document. For more information [look here >>>](#)

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#### **4.13 Where can I find the 3GPP Confidentiality and Integrity algorithms?**

The 3GPP Confidentiality and Integrity algorithms F8 & F9 (KASUMI) have been developed through the collaborative efforts of the [3GPP Organizational Partners](#). For more information and in order to download the algorithms [look here >>>](#)

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#### **4.14 What is a Release - how does specification version numbering work?**

To meet new market requirements, 3GPP specifications are continually being enhanced with new features. In order to provide developers with a stable platform for implementation while at the same time allowing the addition of new features, the 3GPP uses a system of parallel "releases". For more information [look here >>>](#)

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#### **4.15 Where can I find information on the current status of 3GPP specifications?**

New versions of many 3GPP specifications are made available shortly after the 3GPP TSG plenary meetings which take place four times a year (March, June, September and December). In order to identify what the current version is or and how to find information about older versions of specifications [look here >>>](#).

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#### **4.16 What is the system for numbering specifications? Which specifications contain information on specific topics ?**

All 3G and GSM specifications have a 3GPP specification number consisting of 4 or 5 digits. (e.g. 09.02 or 29.002). For a more complete description and examples [look here >>>](#)

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### **5. Technical Specification Group/Working Group**

#### **5.1 Who are the TSG/WG Officials and Support team and Where can I find their contact details?**

Each TSG/WG has a Chairman, up to two Vice-Chairmen (three Vice-Chairmen) in the case of TSGs), a secretary and a member of the support team. From the [3GPP structural organization page](#), click on the TSG or WG of interest to reach its home page. From there, click on the "List of elected officials" entry in the table.

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#### **5.2 Where can I find the Terms of Reference for my TSG/WG?**

The current Terms of Reference for each TSG/WG appear on the web pages of each TSG/WG.

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#### **5.3 When did the Officials begin their Term of Office?**

The four Technical Specification Groups (TSGs) have elected their 3GPP TSG officials at the Fort Lauderdale (FL) meeting in March.

The meeting reports for each TSG/WG will indicate the election/re-election/resignation of an official. A [complete list of TSG/WG officials](#) is available on the 3GPP web site.

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#### **5.4 May I become an Official?**

The TSG Chairman and Vice Chairmen are elected by the Technical Specification Group from amongst the Individual Member representatives. Each TSG can elect a maximum of two Vice Chairmen. Once elected, these candidates are proposed to the PCG for appointment.

The Working Group Chairman and Vice Chairmen are elected by the Working Group from amongst the Individual Member representatives. Each Working Group can elect a maximum of two Vice Chairmen.

A candidate for TSG or Working Group election shall provide a letter of support from his Organization and nominations may be made up to the point when an election takes place.

The TSG Chairman and Vice-Chairmen shall be appointed by the PCG on the proposal of the TSG.

The Chairman and the Vice-Chairmen shall be appointed for a two year term of office. The Chairman and Vice-Chairmen may be appointed for one further

consecutive term. If, at the end of a Chairman or Vice Chairmans second term, no other candidates are available, the Chairman or Vice Chairmen may be appointed for a further term.

Chairman and Vice Chairmen should not be from the same region, Organizational Partner, or from the same group of companies, unless no other candidate is available.

Successive Chairmen should not be from the same Organizational Partner, the same region or from the same group of companies, unless no other candidate is available

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#### **5.5 Where are my TSG/WGs documents stored?**

Each TSG/WG has a specific area allocated on the 3GPP ftp server.

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#### **5.6 Is the ETSI Secretariat responsible for the management of the Application Provider Codes for 3GPP ?**

The ETSI secretariat does not actually allocate these number - unique number are obtained by the coding scheme that is defined in 31.110. Application identifiers for consist of two parts - a RID and a PIX.

The RID is simple: ISO/IEC have allocated the number 'A000000087' to the 3GPP. This was allocated to ETSI on behalf of the 3GPP.

The coding of the PIX is specified in annex B of 31.110. There are three different sorts of PIX:

- 3G UICC,
- 3G USIM, and
- 3G USIM toolkit

Each of these requires the use of the "Card issuer code" as defined in ITU-T recommendation E.118 [3]. This is a unique code given to each card issuer (for example, each GSM operator in the world has requested a card issuer code). So, any 3G operator that does not have a 2G system that uses SIMs will have to apply to the ITU-T in accordance with the procedures in E.118.

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## **6. Documents and TSG/WG Meetings**

### **6.1 How do I register for a meeting?**

If you are a TSG/WG member you will receive information about forthcoming meetings via the e-mail exploder. This will indicate the path on the ftp server where the invitation and related documents may be found. You may also consult the [Meetings area](#) on the 3GPP Web where the latest invitations of each TSG/WG are stored together with the calendar of meetings.

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### **6.2 How do I submit a contribution for a meeting?**

Each meeting invitation will contain details of how to register contributions for that meeting and who to send your contributions to.

### **6.3 How do I obtain a document number for my contribution?**

Each meeting invitation will contain details of how to register contributions for that meeting and who to send your contributions to.

### **6.4 Where can I download documents for an upcoming meeting?**

Each meeting invitation will contain details of where the documents are stored for the meeting. It is advisable for delegates attending a meeting to download the documents available prior to the meeting from the ftp server and onto their personal computers.

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### **6.5 Where can I find a temporary document template?**

The document template is made available by each TSG/WG in the meeting respective folder on the ftp server.

### **6.6 What happens if I am unable to attend a meeting?**

You should contact your chairman and the meeting host indicating when you will be absent.

## **Work Items and Deliverables**

### **6.7 What is my role when my TSG/WGs has to approve a deliverable?**

Approval of Technical Specifications and Technical reports by a TSG shall normally be by consensus.

Where consensus cannot be achieved in the TSG a vote may be taken.

When Technical Specifications and Technical Reports become sufficiently stable, they shall be put under change control of the relevant TSG. The further elaboration of these Technical Specifications and Technical Reports shall be achieved by Change Requests (CRs) to be approved by the TSG.

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**6.8 What are the different types of deliverables?**

3GPP shall prepare, approve and maintain documents known as Technical Specifications and Technical Reports. Such documents shall be drawn up by the TSGs and shall, following approval at that level, be submitted to the participating Organizational Partners to be submitted to their respective standardization processes.

**6.9 Can I write an 3GPP Document myself?**

Why not?! If you wish to propose a deliverable then bring it to the attention of your chairman and the other members of the TSG/WG in order to discuss the subject.

Each proposed new Work Item shall be supported by at least four Individual Members, and their names shall be recorded in the Work Item definition prepared for the TSG approval. One or more persons shall be named as Rapporteur for the proposed Work Item, and the Rapporteur shall act as the prime contact point on technical matters and for information on progress throughout the drafting phases. The supporting Individual Members are expected to contribute to and progress the new work item throughout the drafting phases.

In addition to the above, TSGs shall approve new Work Items, giving all essential parameters. The proposal shall be entered into the 3GPP work programme, clearly marked as a new entry, for which a unique reference identity shall be allocated.

**6.10 Do I and my company have to support my TSG/WGs Work Items?**

Neither you or your company is obliged to support the work items of your TSG/WG, however it is normal that if you and your company are supporting members of a Work Item that you be in agreement with their work and will normally support the production of the related deliverable.

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**7. Miscellaneous****7.1 How do I resolve the problem with the corrupt file warning in MSWord. Note that this only applies to MSWord2000?**

Problem:

When opening a document in Word 2000, the following error message appears: This document may be corrupt. To preserve the contents: Choose Select All from the Edit menu, then choose Copy from the Edit menu. Create a new document, then choose Paste from the Edit menu.

Cause:

This may be related to something called list templates. A list template is created for every numbering or bulleting scheme defined in the document. Apparently, a minor change in a scheme, or even switching a list from numbered to bulleted creates a new template. In an arcane way, tables are also related to list templates. The template count increases automatically, but cannot be decreased by the user. When more than 1500 templates are defined in the list, the document becomes corrupt. There are more reasons why a document is corrupt, so the fix proposed will not solve the problem 100% of the times.

Resolution:

- To solve the problem, you need to have MS Office 2000 Service Release 1/1a installed . To check this, in Word on the "Help" menu point to "About Microsoft Word". The first line in the window shows you the MSWord version you have. You should get something like: "Microsoft Word 2000 (9.0.3821 SR-1)". If you don't get SR-1 (or SR-1a) at the end, you need to install the Service Release. Contact your IT department or follow this link: <http://support.microsoft.com/support/kb/articles/Q245/0/25.ASP>
- You have to introduce a new entry in the Windows registry. You can do this simply by clicking twice in the file "word\_bug\_fix.reg" attached. Note that modifying the Windows Registry incorrectly can cause serious problems; this fix simply introduces a new entry in a MSWord part of the registry, but if you don't feel confident, contact your IT department or check the Microsoft link below.
- Open MSWord normally. The fix proposed will open the corrupted files without warning and delete the unused list templates, so its count goes under 1500. The user will not notice anything, but this implies that the document is modified. When closing, MSWord will ask the user if he wants to save the changes, even if apparently no change has been made.

This bug is confirmed by Microsoft and it is listed in its Support Web Site. Follow this link to get the complete report:

<http://support.microsoft.com/support/kb/articles/q241/5/81.asp>

**7.2 Where is the information regarding the Core Network located ?**

Unfortunately, there is no one document that describes the Core Network, as it is an area of work far too involved to be contained in one specification. For a general overview document of Network Architecture TS 23.002 may be downloaded from our FTP server. [ftp://ftp.3gpp.org/Specs/October\\_99/23\\_series](ftp://ftp.3gpp.org/Specs/October_99/23_series). For more general organizational information, have a look at the 3GPP web site which shows the individual areas of 3GPP and in particular Core Network. <http://www.3gpp.org/TSG/CN.htm>.

**7.3 Do I need a password and user name to access the 3GPP Web site ?**

No password is needed to access any information on the 3GPP Web site, all information is openly published.

**7.4 Can you give me information about which companies manufacture particular types of equipment. Or about what services are available on particular networks?**

No. The 3GPP Support Team must remain neutral and must not show bias to any of its Individual Members. Such information may be available from the Global Mobile Suppliers Association ([www.gsacom.com](http://www.gsacom.com)) where you will find a statistics area which could be of help.

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**8 Technical topics**

**8.1 Where can I find a list of technical terms and abbreviations used in 3GPP documents?**

Individual terms are defined in each 3GPP Technical Specification and Technical Report. A compendium of terms and abbreviations can be found in [3GPP TR 21.905](#). ETSI maintains a list of all terms and abbreviations defined in its publications in "[TEDDI](#)".

**8.2 What is the difference between a SIM and a USIM? What is a UICC?**

The Universal Integrated Circuit Card (UICC) is the removable card bearing a silicon chip which holds 3GPP system subscriber information. The UICC is a general purpose card having both non-volatile memory and a general-purpose processor. Thus while it is used, in a 3GPP terminal, to hold (U)SIM information / applications, it can also be used for other purposes, possibly unrelated to telecommunications. A common use of UICCs is in the well-known credit card format, and there is no reason why a single card could not hold (U)SIM functionality in addition to electronic purse / credit card functionality, or indeed any other application / data.

The Subscriber Identity Module (SIM) is the collection of functions which personalize a 3GPP terminal. The SIM contains static information about the services subscribed to, the phone number, the identity of the home network, a list of preferred roaming networks, and so on. The SIM also contains storage capacity for the subscriber's contacts' phone numbers. The term "SIM" is often misused for "UICC". The SIM concept was created during the early development of the GSM standards, and second-generation (based on GERAN) terminals up to and including Release 4 use SIM functionality.

For third generation systems (based on UTRAN), more complex functionality was called for, and the SIM evolved into the USIM or Universal Subscriber Identity Module. Release 99 3rd generations onwards use USIMs rather than SIMs. From Release 5 onwards, both second and third generation terminals use USIMs (though to maintain backwards compatibility with older networks and terminals, later Release 2nd generation USIMs are likely to implement Rel-4 SIM functionality in addition to Rel-5 or later USIM functionality).

For further information on the 3GPP Release system, see the [Release page](#).

**8.3 What is an R-UIM?**

Short answer: nothing to do with us!

Longer answer: the R-UIM is to 3GPP2 systems what the USIM is to 3GPP systems. (3GPP2 is an independent organization responsible for the standardization of CDMA2000.)

**8.4 I have transferred a movie file from my phone to my PC. Where can I find a player for 3gp files?**

The 3gp file format is defined in 3GPP TS 26.244 and in TS 26.412. However, 3GPP has not defined a decoder. Your phone manufacturer may have supplied a player (check the CD-ROM which came with your phone) or look on its web site. Alternatively, search the Internet: a number of commercial players exist, and trial versions of some may be downloaded without charge.

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Last updated:

2006-07-20: answer to faq 5.1 revised

2006-01-23: "technical" area added

2005-09-12

2005-08-22


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## Purpose and Content

This area is designed to provide delegates with general information and guidance on areas of 3GPP that relate directly to their standardization activities. On this page you will find information about the TSGs and WGs, a guide to 3GPP meetings as well as links to other areas of interest to 3GPP delegates.

### Information about TSGs or WGs:

#### Structure:

There are presently 4 Technical Specification Groups (TSGs). Each TSG is made up of several Working Groups (WGs) which deal with specific parts of the TSG's work. The WGs may be further split into Sub Working groups (SWGs). For more information on the TSG structure [look here >>>](#).

#### Homepage:

All of the important information and documents relating to each TSG or WG can be found via the homepage for that group. In order to locate the homepages for the groups you are interested in [look here >>>](#).

#### Discussion Lists (e-mail exploders):

Each TSG or WG has one or more e-mail discussion lists. In order to access the 3GPP discussion lists and obtain guidance on how to subscribe to them please [look here >>>](#)

#### TSG or WG Participation:

The following have a right to participate in meetings of the TSG and subordinate groups:

- \* Representatives of members of participating Organizational Partners (i.e. Individual Members)
- \* Representatives of Organizational Partners
- \* Representatives of Market Representation Partners.
- \* Representatives of Observers and Guests

#### Officials:

Each TSG or WG has a Chairman, up to two Vice-Chairmen who are from member companies, and a secretary who is usually from the MCC support team. Their contact details can be obtained from the homepage of the individual TSG or WG.

For more information on the election of officials ([see Article 22 of 3GPP Working Procedures](#)).

#### Documents Area:

Each TSG or WG has a specific documents area allocated on the [3GPP ftp server](#). This is where you will find the all meeting documents including invitations, agenda, reports, contributions and Change Requests relating to that group.

#### Terms of Reference:

Each TSG or WG has Terms of Reference which describe its scope and activities. The ToR for each group can be found via the group's homepage.

#### Participants List:

Active participant lists for TSGs and WGs are maintained by the [Support Team](#). Any delegate attending a meeting will be added to the TSG or WG active participants list, but will be removed after not attending 3 or more consecutive meetings ([see Article 35 of 3GPP Working Procedures](#)).

## Information about 3GPP Meetings:

#### Frequency:

TSGs hold their plenary meetings 4 times a year, typically in March, June, September and December. TSG CT, RAN and SA collocate their meetings. TSG GERAN meets independently. WGs hold one or more meetings in between each TSG plenary. For more information on the meetings, consult the [meetings calendar >>>](#)

#### Registration:

All registration for 3GPP meetings is carried out on-line (i.e. via the 3GPP website). To register for a meeting follow the steps outlined below:

- \* Go to the general [meetings](#) page. (You can also access the meetings via the group-specific meetings pages accessible via the group's home page, in turn accessible via [the 3GPP organigram](#)).
- \* Scroll to find the meeting you wish to attend
- \* Click the meeting title.
- \* Click on "Registration".
- \* Check the box corresponding to the meeting concerned (it should normally be already checked) and click the

#### Meeting Document Area:

Each meeting invitation will contain details of where the contribution documents are stored. It is advisable for delegates attending a meeting to download the documents available prior to the meeting from the ftp server and onto their personal computers.

#### Location:

Most 3GPP meetings are held in countries in which 3GPP Individual Members are based: (Europe, North America, Asia.) Meeting locations tend to reflect the geographical diversity of the TSG and WG participants. Meetings may occasionally be hosted outside these regions by agreement of the delegates..

#### Meeting Templates:

Several templates exist for submitting contributions to meetings. These can be found on the respective meeting folder on the ftp server.

#### Document Numbering:

Each TSG or WG meeting will have a structured numbering scheme for its documents. Delegates wishing to make contributions must first obtain a document number. For more information numbering [see Article 34 of 3GPP Working](#)

#### Hosting:

Any 3GPP Individual Member or group thereof may host a meeting. For more information on hosting requirements [see here >>>](#).

**Invitation:**

Invitations for 3GPP meetings and the necessary logistical information are to be distributed at least 21 days before the meeting to the TSG or WG membership list via e-mail, and also posted on the [3GPP website](#).

You may also consult the homepage for individual TSG or WGs where you will find the archives of past meetings, and information relating to any future meetings for that group.

Last update:  
2006-06-13: General update  
2003-08-13

"Register" button at either the top or the bottom of the page.

Enter your username if you have one. However, a username is not needed to register for any 3GPP meeting so if you do not have one, this field can be ignored.

NB

\* Fill in the details on the next page, choosing your organization from the drop down menu.

Organizations are classed by [Organizational Partner](#) so ensure that you have registered under the correct partner.

NB

\* Select the capacity in which you will attend the meeting. Select either Individual Member, Partner or MRP and click on 'Submit registration'

**Contributing:**

Any 3GPP Individual Member may make a contribution to a 3GPP meeting. Each meeting invitation will contain details of how to register and provide contributions for that meeting.

**Procedures.****Automatic Document Numbering (ADN):**

Some groups use an on-line tool for allocating document numbers. This will be clearly stated in the meeting invitation.



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only search 3GPP site  
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**About 3GPP**

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The 3rd Generation Partnership Project (3GPP) is a collaboration agreement that was established in December 1998. The collaboration agreement brings together a number of telecommunications standards bodies which are known as "[Organizational Partners](#)". The current Organizational Partners are ARIB, CCSA, ETSI, ATIS, TTA, and TTC.

The establishment of 3GPP was formalized in December 1998 by the signing of the "[The 3rd Generation Partnership Project Agreement](#)".

The original scope of 3GPP was to produce globally applicable Technical Specifications and Technical Reports for a 3rd Generation Mobile System based on evolved GSM core networks and the radio access technologies that they support (i.e., Universal Terrestrial Radio Access (UTRA) both Frequency Division Duplex (FDD) and Time Division Duplex (TDD) modes). The scope was subsequently amended to include the maintenance and development of the Global System for Mobile communication (GSM) Technical Specifications and Technical Reports including evolved radio access technologies (e.g. General Packet Radio Service (GPRS) and Enhanced Data rates for GSM Evolution (EDGE)).

The discussions that led to the signing of the 3GPP Agreement were recorded in a series of slides called the "[Partnership Project Description](#)" that describes the basic principles and ideas on which the project is based. The Partnership Project Description has not been maintained since it's first creation but the principles of operation of the project still remain valid.

In order to obtain a consolidated view of market requirements a second category of partnership was created within the project called "Market Representation Partners".

"Observer" status is also possible within 3GPP for those telecommunication standards bodies which have the potential to become Organizational Partners but which, for various reasons, have not yet done so.

A permanent project support group called the "Mobile Competence Centre (MCC)" has been established to ensure the efficient day to day running of 3GPP. The MCC is based at the ETSI headquarters in Sophia Antipolis, France.

If you require any further information, this may be obtained from "[3GPP Contact](#)"

Last update:

2007-06-29: 3GPP agreement update  
2006-04-24: link to Structure page corrected, link to obsolete TB Officials page deleted; direct link to zip file of Working Procedures removed  
2004-04-13



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### 3GPP E-mail Exploder Lists

A full list of the 3GPP email exploder lists is available here <http://list.3gpp.org/>

This list does contain all the ETSI exploder lists also, however the majority of the 3GPP lists are located right at the top of the list. For some TSG SA WG1 lists, you will need to scroll further as they may start with S1\_xxx

In order to subscribe to any of these lists please scroll down until you find the list you are interested in, click on the link and follow the simple instructions.

Those delegates who already have an ETSI username and password should use the list management application available [here >>](#)

If you have any problems subscribing to the lists, or you are unsure of which list would be of interest to you please send an email to [3GPPContact](#).

Last updated 17th February 2003

<p><b>List Archives</b></p> <hr/> <p><a href="#">Subscriber's Corner</a> <a href="#">Server Archives</a> <a href="#">List Archives</a></p> <p><a href="#">List Management</a> <a href="#">List Moderation</a> <a href="#">Server Management</a></p> <p><a href="#">Help</a> <a href="#">Log off</a></p> <hr/> <p><a href="#">Archive Search</a></p>	<p style="text-align: center;"><b>Archives of 3GPP_TSG_RAN_WG1@LIST.ETSI.ORG</b></p> <p style="text-align: center;"><i>3gpp_tsg_ran_wg1: tsg ran working group 1</i></p> <ul style="list-style-type: none"><li>◆ <a href="#">Search the archives</a></li><li>◆ <a href="#">Post to the list</a></li><li>◆ <a href="#">Join or leave the list (or change settings)</a></li><li>◆ <a href="#">Manage the list</a> (list owners only)</li></ul> <ul style="list-style-type: none"><li>◆ <a href="#">July 2007</a></li><li>◆ <a href="#">June 2007</a></li><li>◆ <a href="#">May 2007</a></li><li>◆ <a href="#">April 2007</a></li><li>◆ <a href="#">March 2007</a></li><li>◆ <a href="#">February 2007</a></li><li>◆ <a href="#">January 2007</a></li><li>◆ <a href="#">December 2006</a></li><li>◆ <a href="#">November 2006</a></li><li>◆ <a href="#">October 2006</a></li><li>◆ <a href="#">September 2006</a></li><li>◆ <a href="#">August 2006</a></li><li>◆ <a href="#">July 2006</a></li><li>◆ <a href="#">June 2006</a></li><li>◆ <a href="#">May 2006</a></li><li>◆ <a href="#">April 2006</a></li><li>◆ <a href="#">March 2006</a></li><li>◆ <a href="#">February 2006</a></li><li>◆ <a href="#">January 2006</a></li><li>◆ <a href="#">December 2005</a></li><li>◆ <a href="#">November 2005</a></li><li>◆ <a href="#">October 2005</a></li><li>◆ <a href="#">September 2005</a></li><li>◆ <a href="#">August 2005</a></li><li>◆ <a href="#">July 2005</a></li><li>◆ <a href="#">June 2005</a></li><li>◆ <a href="#">May 2005</a></li><li>◆ <a href="#">April 2005</a></li><li>◆ <a href="#">March 2005</a></li><li>◆ <a href="#">February 2005</a></li><li>◆ <a href="#">January 2005</a></li><li>◆ <a href="#">December 2004</a></li><li>◆ <a href="#">November 2004</a></li><li>◆ <a href="#">October 2004</a></li><li>◆ <a href="#">September 2004</a></li><li>◆ <a href="#">August 2004</a></li><li>◆ <a href="#">July 2004</a></li><li>◆ <a href="#">June 2004</a></li><li>◆ <a href="#">May 2004</a></li><li>◆ <a href="#">April 2004</a></li><li>◆ <a href="#">March 2004</a></li><li>◆ <a href="#">February 2004</a></li><li>◆ <a href="#">January 2004</a></li><li>◆ <a href="#">December 2003</a></li><li>◆ <a href="#">November 2003</a></li><li>◆ <a href="#">October 2003</a></li><li>◆ <a href="#">September 2003</a></li><li>◆ <a href="#">August 2003</a></li><li>◆ <a href="#">July 2003</a></li><li>◆ <a href="#">June 2003</a></li></ul>
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- ◆ [April 1999](#)
- ◆ [March 1999](#)
- ◆ [February 1999](#)
- ◆ [January 1999](#)
- ◆ [December 1998](#)



<p><b>Server Archives</b></p> <hr/> <p><b>Subscriber's Corner</b> Server Archives</p> <p><b>List Management</b> <b>List Moderation</b> <b>Server Management</b></p> <hr/> <p><b>Help</b> <b>Log off</b></p> <hr/> <p><b>Archive Search</b></p>	<h2>List Archives at LIST.ETSI.ORG</h2> <p>From this page you can browse the online archives of the following mailing lists:</p> <p><u>3GPP-REVIEW</u> 3gpp-review : gsmtrans replacement (<i>11 subscribers</i>)</p> <p><u>3GPP_3GPP2_SCM</u> 3gpp_3gpp2_scm : 3gpp-3gpp2 spatial channel modelling (<i>30 subscribers</i>)</p> <p><u>3GPP_FFG</u> 3gpp_ffg :3gpp list (<i>16 subscribers</i>)</p> <p><u>3GPP_GUP</u> 3gpp_gup : evolution of 3gpp (<i>21 subscribers</i>)</p> <p><u>3GPP_ORGANIZATION</u> 3gpp_organization: 3gpp discussion group (<i>52 subscribers</i>)</p> <p><u>3GPP_TSG_CN</u> 3GPP_TSG_CN: THIS LIST HAS NOW BEEN CLOSED 18.03.05 (<i>0 subscribers</i>)</p> <p><u>3GPP_TSG_CN_AH_ITUT</u> 3GPP_TSG_CN_AH_ITUT: THIS LIST HAS NOW BEEN CLOSED (<i>0 subscribers</i>)</p> <p><u>3GPP_TSG_CN_WG1</u> 3GPP_TSG_CN_wg1: THIS LIST HAS NOW BEEN CLOSED 18.03.05 (<i>0 subscribers</i>)</p> <p><u>3GPP_TSG_CN_WG2</u> 3GPP_TSG_CN_wg2: THIS LIST HAS BEEN CLOSED 18.03.05 (<i>0 subscribers</i>)</p> <p><u>3GPP_TSG_CN_WG3</u> 3GPP_TSG_CN_wg3: THIS LIST HAS NOW BEEN CLOSED (<i>0 subscribers</i>)</p> <p><u>3GPP_TSG_CN_WG4</u> 3GPP_TSG_CN_WG4: THIS LIST HAS NOW BEEN CLOSED 18.03.05 (<i>0 subscribers</i>)</p> <p><u>3GPP_TSG_CN_WG5</u> 3GPP_TSG_CN_WG5: THIS LIST HAS NOW BEEN CLOSED (<i>0 subscribers</i>)</p> <p><u>3GPP_TSG_CN_WG5_JOINTAPIWORK</u> 3gpp_tsg_cn_wg5_jointapiwork : THIS LIST HAS NOW BEEN CLOSED 18.03.05 (<i>0 subscribers</i>)</p> <p><u>3GPP_TSG_CT</u> 3GPP_TSG_CT - Core Network and Terminals (<i>264 subscribers</i>)</p> <p><u>3GPP_TSG_CT_WG1</u> 3GPP_TSG_CT_WG1 - Core Network and Terminals WG 1 (<i>854 subscribers</i>)</p> <p><u>3GPP_TSG_CT_WG1_MMS_SMS_CBS_AT</u> 3GPP_TSG_CT_WG1_MMS_SMS_CBS_AT:Commands (<i>127 subscribers</i>)</p> <p><u>3GPP_TSG_CT_WG2</u> 3GPP_TSG_CT_WG2 - Core Network and Terminals WG 2 (<i>51 subscribers</i>)</p> <p><u>3GPP_TSG_CT_WG3</u> 3GPP_TSG_CT_WG3 - Core Network and Terminals WG 3 (<i>308 subscribers</i>)</p> <p><u>3GPP_TSG_CT_WG4</u> 3GPP_TSG_CT_WG4 - Core Network and Terminals WG 4 (<i>382 subscribers</i>)</p> <p><u>3GPP_TSG_CT_WG5</u> 3GPP_TSG_CT_WG5 - Core Network and Terminals WG 5 (<i>220 subscribers</i>)</p> <p><u>3GPP_TSG_CT_WG6</u> 3GPP_TSG_CT_WG6 - Core Network and Terminals WG 6 (<i>210 subscribers</i>)</p> <p><u>3GPP_TSG_CT_WG6_API_TEST</u> 3GPP_TSG_CT_WG6_API_TEST: Mailing List (<i>39 subscribers</i>)</p> <p><u>3GPP_TSG_GERAN</u> 3gpp_tsg_geran : list for etsi tsg geran mailing (<i>295 subscribers</i>)</p> <p><u>3GPP_TSG_GERAN_FUTURERAN</u> 3gpp_tsg_geran_futureran : list for etsi tsg geran futureran mailing (<i>54 subscribers</i>)</p> <p><u>3GPP_TSG_GERAN_TDOC</u> 3gpp_tsg_geran_tdoc : list for etsi tsg geran temporary documents (<i>252 subscribers</i>)</p> <p><u>3GPP_TSG_GERAN_WG1</u> 3gpp_tsg_geran_wg1 : list for etsi tsg geran wg1 mailing (<i>201 subscribers</i>)</p> <p><u>3GPP_TSG_GERAN_WG2</u> 3gpp_tsg_geran_wg2 : list for etsi tsg geran wg2 mailing (<i>207 subscribers</i>)</p> <p><u>3GPP_TSG_GERAN_WG3</u></p>
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[3gpp\\_tsg\\_geran\\_wg3](#) : list for etsi tsg geran wg3 mailing (223 subscribers)  
[3GPP TSG GERAN WG4](#)  
[3gpp\\_tsg\\_geran\\_wg4](#) : THIS LIST HAS BEEN CLOSED (0 subscribers)  
[3GPP TSG GERAN WG4 EDGE](#)  
[3gpp\\_tsg\\_geran\\_wg4\\_edge](#) : THIS LIST HAS BEEN CLOSED (7 subscribers)  
[3GPP TSG GERAN WG4 GPRS](#)  
[3gpp\\_tsg\\_geran\\_wg4\\_gprs](#) : THIS LIST HAS BEEN CLOSED (6 subscribers)  
[3GPP TSG GERAN WG4 PCS1900](#)  
[3gpp\\_tsg\\_geran\\_wg4\\_pcs1900](#) : THIS LIST HAS BEEN CLOSED (3 subscribers)  
[3GPP TSG GERAN WG4 TTCN](#)  
[3gpp\\_tsg\\_geran\\_wg4\\_ttcn](#) : THIS LIST HAS BEEN CLOSED (2 subscribers)  
[3GPP TSG GERAN WG5](#)  
[3gpp\\_tsg\\_geran\\_wg5](#) : THIS LIST HAS BEEN CLOSED (0 subscribers)  
[3GPP TSG LEADERS](#)  
[3gpp\\_tsg\\_leaders](#): tsg leaders group (81 subscribers)  
[3GPP TSG RAN](#)  
[3gpp\\_tsg\\_ran](#): tsg radio access network group (649 subscribers)  
[3GPP TSG RAN3-SA5-RET](#)  
[3GPP\\_TSG\\_RAN3-SA5-RET](#) : Common RAN3/SA5 Work Item discussion for Remote List closed (0 subscribers)  
[3GPP TSG RAN ADHOC](#)  
[3gpp\\_tsg\\_ran\\_adhoc](#): tsg ran ad hoc meetings (48 subscribers)  
[3GPP TSG RAN AHG1](#)  
[3gpp\\_tsg\\_ran\\_ahg1](#): tsg ran ad-hoc group on itu co-ordination (52 subscribers)  
[3GPP TSG RAN WG1](#)  
[3gpp\\_tsg\\_ran\\_wg1](#): tsg ran working group 1 (1,129 subscribers)  
[3GPP TSG RAN WG1 EUL AH](#)  
[3GPP\\_TSG\\_RAN\\_WG1\\_EUL\\_AH](#) (79 subscribers)  
[3GPP TSG RAN WG1 WCDMA MIMO](#)  
[3GPP\\_TSG\\_RAN\\_WG1\\_WCDMA\\_MIMO](#) (145 subscribers)  
[3GPP TSG RAN WG2](#)  
 No title defined (1,034 subscribers)  
[3GPP TSG RAN WG2 MBMS RRC](#)  
[3GPP\\_TSG\\_RAN\\_WG2\\_MBMS\\_RRC](#) List (94 subscribers)  
[3GPP TSG RAN WG2 ROHC](#)  
[3GPP\\_TSG\\_RAN\\_WG2\\_ROHC](#) : 3GPP\_TSG\_RAN\_WG2\_ROHC List (63 subscribers)  
[3GPP TSG RAN WG3](#)  
[3gpp\\_tsg\\_ran\\_wg3](#): tsg ran working group 3 (752 subscribers)  
[3GPP TSG RAN WG4](#)  
[3gpp\\_tsg\\_ran\\_wg4](#): tsg ran working group 4 (603 subscribers)  
[3GPP TSG RAN WG4 BANDS](#)  
[3GPP\\_TSG\\_RAN\\_WG4\\_Bands](#) : New UMTS frequency bands (110 subscribers)  
[3GPP TSG RAN WG4 CELL RESELECTION](#)  
[3GPP\\_TSG\\_RAN\\_WG4\\_Cell\\_Reselection](#) : List Closed (0 subscribers)  
[3GPP TSG RAN WG4 CPC](#)  
[3gpp\\_tsg\\_ran\\_wg4\\_CPC](#): tsg ran working group 4 CPC (71 subscribers)  
[3GPP TSG RAN WG4 DIVERSITY OFF](#)  
[3gpp\\_tsg\\_ran\\_wg4\\_DIVERSITY\\_OFF](#): tsg ran working group 4 Diversity off (68 subscribers)  
[3GPP TSG RAN WG4 EDCH](#)  
[3GPP\\_TSG\\_RAN\\_WG4\\_EDCH](#) : Enhanced Uplink Performance Requirements (123 subscribers)  
[3GPP TSG RAN WG4 HSDPA](#)  
[3GPP\\_TSG\\_RAN\\_WG4\\_HSDPA](#) : HSDPA PERFORMANCE REQUIREMENTS (175 subscribers)  
[3GPP TSG RAN WG4 LTE](#)  
[3GPP TSG RAN WG4 Long Term Evolution](#) (118 subscribers)  
[3GPP TSG RAN WG4 MBMS](#)  
[3GPP\\_TSG\\_RAN\\_WG4\\_MBMS](#) : List closed (0 subscribers)  
[3GPP TSG RAN WG4 POWERCONTROL](#)  
[3GPP\\_TSG\\_RAN\\_WG4\\_PowerControl](#) : List closed (0 subscribers)  
[3GPP TSG RAN WG4 TEM](#)

[3gpp\\_tsg\\_ran\\_wg4\\_tem](#) : THIS LIST HAS NOW BEEN CLOSED (*18 subscribers*)  
[3GPP TSG RAN WG4 UE ANTENNA](#)  
[3GPP\\_TSG\\_RAN\\_WG4\\_UE\\_Antenna](#): UE Antenna Performance (*170 subscribers*)  
[3GPP TSG RAN WG4 UE TXPOW](#)  
 UE Max Output Power back off : List closed (*1 subscriber*)  
[3GPP TSG RAN WG5](#)  
[3GPP\\_TSG\\_RAN\\_WG5](#) : Testing (*483 subscribers*)  
[3GPP TSG RAN WG5 IMSCC](#)  
[3GPP TSG RAN WG5 IMS](#) Call Control mailing (*112 subscribers*)  
[3GPP TSG RAN WG5 RF](#)  
[3GPP\\_TSG\\_RAN\\_WG5\\_RF](#) : Radio Frequency (*160 subscribers*)  
[3GPP TSG RAN WG5 SIG](#)  
[3GPP\\_TSG\\_RAN\\_WG5\\_SIG](#): Signalling (*387 subscribers*)  
[3GPP TSG RAN WGS LONG TERM EVOLUTION](#)  
[3GPP\\_TSG\\_RAN\\_WGS\\_LONG\\_TERM\\_EVOLUTION](#): UTRA/UTRAN Long Term Evolution (*377 subscribers*)  
[3GPP TSG RAN WGS LTE UE TRANSCEIVER](#)  
[3gpp\\_tsg\\_ran\\_wgs\\_lte\\_ue\\_transceiver](#) (*112 subscribers*)  
[3GPP TSG SA](#)  
[3gpp\\_tsg\\_sa](#): tsg system aspects group (*413 subscribers*)  
[3GPP TSG SA WG1](#)  
[3gpp\\_tsg\\_sa\\_wg1](#): tsg sa services (*533 subscribers*)  
[3GPP TSG SA WG1 AIPN](#)  
[3GPP\\_TSG\\_SA\\_WG1\\_AIPN](#) List (*55 subscribers*)  
[3GPP TSG SA WG1 GLOBALTEXT](#)  
[3gpp\\_tsg\\_sa\\_wg1\\_globaltext](#): THIS LIST HAS BEEN CLOSED (*0 subscribers*)  
[3GPP TSG SA WG1 VOCABULARY](#)  
 THIS LIST HAS BEEN CLOSED (*80 subscribers*)  
[3GPP TSG SA WG1 WLAN](#)  
 THIS LIST HAS BEEN CLOSED (*13 subscribers*)  
[3GPP TSG SA WG2](#)  
[3gpp\\_tsg\\_sa\\_wg2](#): tsg sa architecture (*1,097 subscribers*)  
[3GPP TSG SA WG2 VCC](#)  
 SA WG2 Voice Call Continuity discussion list: THIS LIST HAS BEEN CLOSED (*0 subscribers*)  
[3GPP TSG SA WG3](#)  
[3gpp\\_tsg\\_sa\\_wg3](#): tsg sa security (*301 subscribers*)  
[3GPP TSG SA WG3 LI](#)  
[3gpp\\_tsg\\_sa\\_wg3\\_li](#): (tsg sa wg3 lawful interception group) (*139 subscribers*)  
[3GPP TSG SA WG4](#)  
[3gpp\\_tsg\\_sa\\_wg4](#): tsg sa codec (*313 subscribers*)  
[3GPP TSG SA WG5](#)  
[3gpp\\_tsg\\_sa\\_wg 5](#): tsg sa5 telecoms management (*308 subscribers*)  
[3GPP TSG SA WG5 SWGA](#)  
[3GPP\\_TSG\\_SA\\_WG5\\_SWGA](#) : Harmonization (*197 subscribers*)  
[3GPP TSG SA WG5 SWGB](#)  
[3GPP\\_TSG\\_SA\\_WG5\\_SWGB](#) : Charging (*233 subscribers*)  
[3GPP TSG SA WG5 SWGC](#)  
[3GPP\\_TSG\\_SA\\_WG5\\_SWGC](#) : OAM&P Interface Definition (*202 subscribers*)  
[3GPP TSG SA WG5 SWGD](#)  
[3GPP\\_TSG\\_SA\\_WG5\\_SWGD](#) : OAM&P Data Definition (*188 subscribers*)  
[3GPP TSG T](#)  
[3gpp\\_tsg\\_t](#): tsg terminals group: THIS LIST HAS NOW BEEN CLOSED (*0 subscribers*)  
[3GPP TSG T WG1](#)  
[3gpp\\_tsg\\_t\\_wg1](#): THIS LIST HAS NOW BEEN CLOSED - 18.03.05 (*0 subscribers*)  
[3GPP TSG T WG1 RF](#)  
[3gpp\\_tsg\\_t\\_wg1\\_rf](#): THIS LIST HAS NOW BEEN CLOSED - 18.03.05 (*0 subscribers*)  
[3GPP TSG T WG1 SIG](#)  
[3gpp\\_tsg\\_t\\_wg1\\_sig](#): THIS LIST HAS NOW BEEN CLOSED - 18.03.05 (*0 subscribers*)  
[3GPP TSG T WG2](#)

3gpp\_tsg\_t\_wg2: THIS LIST HAS NOW BEEN CLOSED 18.03.05 (*0 subscribers*)  
3GPP TSG T WG2 SWG1  
3gpp\_tsg\_t\_wg2\_swg1 : execution environment LIST HAS BEEN CLOSED 12/07/2004 (*48 subscribers*)  
3GPP TSG T WG2 SWG2  
3gpp\_tsg\_t\_wg2\_swg2 : terminal interfaces LIST HAS BEEN CLOSED 12/07/2004 (*113 subscribers*)  
3GPP TSG T WG2 SWG3  
3gpp\_tsg\_t\_wg2\_swg3 : messaging LIST HAS BEEN CLOSED 12/07/2004 (*275 subscribers*)  
3GPP TSG T WG3  
 Smart Card Application Aspects: THIS LIST HAS NOW BEEN CLOSED 18.03.05 (*136 subscribers*)  
3GPP TSG T WG3 API  
 T3 API Sub-Working-Group discussion: THIS LIST HAS NOW BEEN CLOSED 18.03.05 (*0 subscribers*)  
3GPP TSG T WG3 TEST  
 T3 testing related discussion: THIS LIST HAS NOW BEEN CLOSED 18.03.05 (*127 subscribers*)  
3GPP TSG T WG3 UI  
 T3 USAT interpreter discussion: THIS LIST HAS NOW BEEN CLOSED 18.03.05 (*0 subscribers*)  
3GPP TSG T WG3 USAT  
 T3 USIM application toolkit discussion: THIS LIST HAS NOW BEEN CLOSED (*0 subscribers*)  
3GPP UE POSITIONING  
3GPP\_UE\_Positioning: 3GPP UE Positioning Reporting (*41 subscribers*)  
3GPP WORKSHOP LTE GSM HANDOVERS  
3GPP\_WS (*156 subscribers*)  
3GPP WP GROUP  
3GPP\_WP\_GROUP: 3GPP Working Procedures Group list (*25 subscribers*)  
ADMIN\_GROUP  
admin\_group : admin\_group list (*80 subscribers*)  
AMETIS  
AMETIS : Ametis (*0 subscribers*)  
AT  
at: tc access & terminals - the etsi "home" for terminal matters (*74 subscribers*)  
AT-A  
at-a: tc at working group for conventional analogue technologies (*56 subscribers*)  
AT-D  
at-d: tc at working group for digital technologies (*59 subscribers*)  
AT-I  
at-i: installation and cabling matters list (*24 subscribers*)  
AT-N  
at-n: at-n list (*50 subscribers*)  
ATMOBILE  
ATmobile STF 304 (*7 subscribers*)  
ATTM  
ATTM: Access, Terminals, Transmission and Multiplexing (*125 subscribers*)  
AT ANNOUNCE  
at\_announce: at\_announce list (*40 subscribers*)  
AT A ANNOUNCE  
at analogue announce list (*31 subscribers*)  
AT D ANNOUNCE  
at digital announce list (*46 subscribers*)  
AT N ANNOUNCE  
at\_n\_announce: at\_ngnathome announce list (*21 subscribers*)  
BOARD 3GFF  
board\_3gff: 3gpp funding formula board ad hoc group (*2 subscribers*)  
BOARD IMS  
Board\_IMS 3GPP-TISPAN synergies (group now closed) (*45 subscribers*)  
BOARD IMS-TEST  
Board ad hoc group on IMS Testbed (*53 subscribers*)

BOARD\_NGG  
BOARD\_NGG: ETSI Board NGN Globalization Group (32 subscribers)

BOARD\_OP\_ADHOC  
Board\_op\_adhoc: ETSI Board list for input to 3GPP OP ad hoc (94 subscribers)

BOARD\_RFID  
BOARD\_RFID ETSI Board RFID (29 subscribers)

BRAN  
bran: broadband radio access networks mailing list (196 subscribers)

BRAN\_5GHZ\_HARM\_STD  
BRAN\_5GHZ\_HARM\_STD : LIST CLOSED (65 subscribers)

BRAN\_ANNOUNCE  
broadband radio access networks announcement list (49 subscribers)

BRAN\_HA  
bran\_ha: bran hiperaccess standards area mailing list (43 subscribers)

BRAN\_HA\_DLC\_DG  
bran\_ha\_dlc\_dg: LIST CLOSED (1 subscriber)

BRAN\_HL  
bran hiperlan2 standardization area (46 subscribers)

BRAN\_HM  
bran\_hm: etsi bran hiperman (fwa below 11 ghz) (57 subscribers)

BRAN\_RCWG  
BRAN\_RCWG : BRAN harmonized standards and related work (66 subscribers)

BROADCAST  
jtc broadcast official mailing list (68 subscribers)

BROADCAST\_ANNOUNCE  
broadcast announcement list (26 subscribers)

BROADCAST\_M331  
BROADCAST\_M331: Response to EC/EFTA (40 subscribers)

CENELEC\_ETSI\_JWG EMC  
No title defined (65 subscribers)

CEPT\_ETSI  
ETSI liaison officers to CEPT ECC (20 subscribers)

CLC-ETSI-JWG-PLTCOEX  
clc-etsi-jwg-pltcoex:cenelec etsi joint working group (33 subscribers)

DANET-TOOL  
Danet-tool (1 subscriber)

DECT  
Dect : DECT mailing list (57 subscribers)

DECT\_A  
dect\_a : THIS LIST HAS BEEN CLOSED (14 subscribers)

DECT\_ANNOUNCE  
announce list for etsi dect (15 subscribers)

DECT\_INTEREST\_GROUP  
DECT\_Interest\_Group : DECT interest group (57 subscribers)

DECT\_NEWGENERATION  
DECT\_NewGeneration : DECT\_NewGeneration List (67 subscribers)

DECT\_T  
dect\_t : THIS LIST HAS BEEN CLOSED (13 subscribers)

DELIVERABLE-NOTIFICATIONS  
deliverable-notifications : deliverable notifications (86 subscribers)

DISTRIBUTIONS\_INDEPT\_DISTRIBUTORS  
Distributions\_Indept\_Distributors: Distributions Indept Distributors list (8 subscribers)

ECALL  
eCall related issues (29 subscribers)

EDS-NEWS  
eds-news: etsi documentation service news (135 subscribers)

EE  
environmental engineering technical committee membership and mailing list (40 subscribers)

EE1

ee1 : THIS LIST HAS BEEN CLOSED (15 subscribers)

EE1 ANNOUNCE  
EE1 ANNOUNCE : THIS LIST HAS BEEN CLOSED (10 subscribers)

EE1 MAINTENANCE  
EE1\_MAINTENANCE : EE1 document maintenance mailing list (11 subscribers)

EE2  
ee2 : (power supply) membership and mailing list (29 subscribers)

EE2 ANNOUNCE  
No title defined (14 subscribers)

EE ANNOUNCE  
environmental engineering announce list (15 subscribers)

EE ECO-ENVIRONMENTAL PRODUCT STANDARDS GROUP  
EE EEPS: Eco-environmental Product Standards (25 subscribers)

EF3  
EF3 : EF3 list (32 subscribers)

EHEALTH  
ETSI Project eHEALTH (16 subscribers)

EHEALTH\_STARTER\_GROUP  
ehealth\_starter\_group: eHealth Starter Group (23 subscribers)

EL-SIGN  
el-sign: electronic signatures - List has been closed (285 subscribers)

EMERGING ICT  
Open discussion on ICT Emerging Technologies (6 subscribers)

EMTEL  
emtel : Emtel (120 subscribers)

EPDECT  
epdect : THIS LIST HAS BEEN CLOSED (119 subscribers)

ERM  
erm : emc and radio spectrum matters distribution (213 subscribers)

ERMCC  
ermcc: erm co-ordination committee (28 subscribers)

ERM ACEA  
No title defined (20 subscribers)

ERM ANNOUNCE  
erm\_announce : emc and radio spectrum matters distribution (48 subscribers)

ERM EMC  
ERM\_EMCC : erm wg on electromagnetic compatibility (106 subscribers)

ERM EMC ANNOUNCE  
erm\_em\_announce: erm\_em\_announce list (25 subscribers)

ERM ITU-R WP8A  
erm\_itu-r\_wp8a : preparation for itu-r wp8a (17 subscribers)

ERM ITU-R WP8A P  
erm\_itu-r\_wp8a\_p : itu-r wp8a participants (17 subscribers)

ERM JOINT TG34 TG28  
ERM\_Joint\_TG34\_TG28: ERM TG34 TG28 work on RFID and SRD (72 subscribers)

ERM LIAISON  
erm\_liaison : external liaison statements from tc erm (19 subscribers)

ERM RM  
erm\_rm : radio matters (129 subscribers)

ERM RM ANNOUNCE  
erm\_rm : radio matters (67 subscribers)

ERM TG04  
erm\_tg04 : automotive emc (25 subscribers)

ERM TG11  
erm\_tg11 : radio lans (37 subscribers)

ERM TG14  
erm\_tg14 : radio interfaces under article 4.2 of the r&tte directive (3 subscribers)

ERM TG17  
erm\_tg17 : standards for broadcast and ancillary communications equipment (31 subscribers)

ERM TG17\_WG1\_2\_4  
erm\_tg17\_wg1\_2\_4 : erm\_tg17 working groups exploder list (26 subscribers)

ERM TG17\_WG3  
erm\_tg17\_wg3 : working group 3 on radio microphones (32 subscribers)

ERM TG17\_WG5  
erm\_tg17\_wg5 : active tv reception (24 subscribers)

ERM TG21  
erm\_tg21 : co-ordination of etsi inputs to rast#10 (2 subscribers)

ERM TG23  
erm\_tg23 : standards for a close-field peer-to-peer symmetrical data communication system (15 subscribers)

ERM TG25  
erm\_tg25 : aeronautical (41 subscribers)

ERM TG25\_VDL\_MODE2  
No title defined (21 subscribers)

ERM TG25\_VDL\_MODE4  
No title defined (18 subscribers)

ERM TG26  
erm\_tg26 : maritime (32 subscribers)

ERM TG27  
erm\_tg27 : radio site engineering (41 subscribers)

ERM TG28  
erm\_tg28 : generic srd's (62 subscribers)

ERM TG30  
erm\_tg30 : wireless medical services (38 subscribers)

ERM TG31A  
erm\_tg31a : ultra wide band for short range devices (72 subscribers)

ERM TG31B  
erm\_tg31b : ultra wide band automotive radar (35 subscribers)

ERM TG31C  
erm\_tg31c : ultra wide band sensors (37 subscribers)

ERM TG32  
erm\_tg32 : pmr List closed (0 subscribers)

ERM TG33  
erm\_tg33 : measurement methods and their uncertainties List closed (0 subscribers)

ERM TG34  
erm\_tg34 : rf identification devices (99 subscribers)

ERM TG35  
ERM\_TG35 : Co-ordination of ETSI inputs to GSRC#1 (20 subscribers)

ERM TG37  
ERM\_TG37 : Intelligent Transport Systems (67 subscribers)

ERM TG37\_DSRC  
ERM\_TG37\_DSRC : technical discussion on DSRC testing and updating (15 subscribers)

ERM TG39  
ERM\_TG39 : Code Division Multiple Access (CDMA) (15 subscribers)

ERM TG40  
Broadband Disaster Relief (11 subscribers)

ERM TGD MR  
ERM\_TGD MR : Digital Mobile Radio (55 subscribers)

ERM TGTLPR  
erm\_tgtlpr : Tank Level Probing Radar (18 subscribers)

ERM WP  
ERM\_WP: Improvement of ERM working procedures discussion list (2 subscribers)

ESI  
esi : etsi tc esi (electronic signatures and infrastructures) (78 subscribers)

ESI ALGO  
ESI\_ALGO : TC ESI discussion list for maintenance of the ALGO paper (27 subscribers)

ESI ANNOUNCE  
esi\_announce : etsi tc electronic signatures (14 subscribers)

ETSAG  
etsag : THIS LIST HAS BEEN CLOSED (16 subscribers)

ETSI-MEDIA-LIST  
etsi-media-list : etsi media mailing list for press releases (164 subscribers)

ETSI-NEWS  
etsi-news: technical news, general news and press announcements from etsi (585 subscribers)

FOE  
foe: ga ad hoc group on Financing of ETSI (0 subscribers)

GRID  
GRID: Open discussion on ETSI GRID Standardization (132 subscribers)

GSC  
GSC: (195 subscribers)

GSC-GRSC  
GSC-GRSC : (125 subscribers)

GSC-GTSC  
GSC-GTSC : (164 subscribers)

GSC-HOD  
GSC-HoD: (36 subscribers)

GSC-IPR  
gsc-ipr: gsc intellectual property rights (32 subscribers)

GSC-USER  
gsc-user : gsc user group (35 subscribers)

GSM\_ONBOARD\_PLANES  
GSM\_onboard\_planes: GSM\_onboard\_planes (60 subscribers)

HF  
hf : etsi tc human factors (hf) (50 subscribers)

HF ANNOUNCE  
hf announcement list (11 subscribers)

HF MOBILE  
No title defined (9 subscribers)

HF\_MULTICULTURAL\_COMMUNICATION  
HF\_MULTICULTURAL\_COMMUNICATION: HF\_MULTICULTURAL\_COMMUNICATION STF 287 list (14 subscribers)

HF\_SETUP  
HF\_SETUP: HF\_SETUP STF 285 list (8 subscribers)

HF TELECAREUX  
Telecare User Experience (6 subscribers)

HF\_UG  
HF\_UG: HF\_UG STF 285 list (9 subscribers)

HF\_USER\_PROFILE\_MANAGEMENT  
HF\_User\_Profile\_Management : STF 265 list (41 subscribers)

HIPERMAN\_WIMAX\_TESTING  
HiperMAN\_WiMAX\_testing : HiperMAN WiMAX testing related mailing list (107 subscribers)

HLRG  
HLRG: GA ad hoc High Level Review Group (71 subscribers)

ICANN-MATTERS  
icann-matters : icann-matters list (87 subscribers)

IMPACT  
impact : impact list (62 subscribers)

IPR  
ipr: ga ad hoc group on ipr policy implementation (227 subscribers)

JEEC  
No title defined (19 subscribers)

LI  
li : etsi tc li (lawful interception) (139 subscribers)

LI ANNOUNCE  
li\_announce : etsi tc lawful interception announce list (61 subscribers)

MESA ORGANIZATION  
mesa\_organization: main distribution list for all mesa related information (151 subscribers)

MESA\_SC  
 mesa\_sc: mesa steering committee (119 subscribers)

MESA\_SSG\_SA  
 mesa\_ssg\_sa: mesa ssg services and applications (134 subscribers)

MESA\_TSG\_SYS  
 mesa\_tsg\_sys: mesa tsg system (157 subscribers)

MSG  
 msg : mobile standards group (109 subscribers)

MTS-GEN  
 MTS\_GEN (48 subscribers)

MTS-IPT  
 MTS-IPT: MTS-IPT (28 subscribers)

MTS-IPT-H248  
 MTS-IPT-H248 : MTS-IPT-H248 (11 subscribers)

MTS-IPT-H323  
 MTS-IPT-H323 : MTS-IPT-H323 (9 subscribers)

MTS-IPT-IPV6  
 MTS-IPT-IPV6 : MTS-IPT-IPV6 (11 subscribers)

MTS-IPT-SIGTRAN  
 MTS-IPT-SIGTRAN :MTS-IPT-SIGTRAN (9 subscribers)

MTS-IPT-SIP  
 MTS-IPT-SIP : MTS-IPT-SIP (27 subscribers)

MTS\_ANNOUNCE  
 mts announcement list (11 subscribers)

NGN\_IMS  
 NGN\_IMS: Joint 3GPP-TISPAN open list (339 subscribers)

NSO-CONTACTS  
 nso-contacts :nso voting contacts (62 subscribers)

NSO\_INFO  
 nso\_info : distribution list for nso information (80 subscribers)

OCG  
 ocg: list of ocg members (ep and tc chairmen) (133 subscribers)

OCG\_ECNS  
 OCG\_ECNS: OCG ad hoc group on Electronic Communications Networks & Services (37 subscribers)

OCG\_EMTEL  
 ocg\_emtel : ocg ad-hoc group on emergency telecommunications (1 subscriber)

OCG\_IOP  
 OCG ad hoc group on Interoperability (15 subscribers)

OCG\_RTED  
 ocg\_rtted : steering committee on harmonised standards (77 subscribers)

OCG\_SECURITY  
 ocg\_security: ocg ad hoc group on security issues (39 subscribers)

PLT  
 plt : etsi project powerline telecommunications (78 subscribers)

PLT\_ANNOUNCE  
 etsi project powerline telecommunications announcement list (37 subscribers)

PLT\_INHOUSE  
 PLT\_InHouse@list.etsi.org : In-House PLT (28 subscribers)

PLT\_WI\_DISCUSSION  
 PLT\_WI\_DISCUSSION@list.etsi.org: Workitem 19 Layer 1 and 2 of a comprehensive PLC System (32 subscribers)

PLUGTESTS-EBXML  
 Plugtests-ebxml: Discussion list on ebxml Interoperability matters (2 subscribers)

PLUGTESTS-ENUM  
 PLUGTESTS-ENUM : Discussion list on enum matters (12 subscribers)

PLUGTESTS-GRID  
 PLUGTESTS-GRID: Discussion list on GRID COMPUTING Interoperability matters (122 subscribers)

PLUGTESTS-IPSEC  
 Plugtests-IPSec : Discussion list on IPSec Interoperability matters (2 subscribers)

PLUGTESTS-IPV6  
 Plugtests-IPV6 : Discussion list on IPv6 Interoperability matters (1 subscriber)

PLUGTESTS-IPV6-PEERING  
 PLUGTESTS-IPV6-PEERING: Discussion list on Remote IPv6 peering (0 subscribers)

PLUGTESTS-J2ME  
 Plugtests-J2ME : Discussion list on J2ME Interoperability matters (2 subscribers)

PLUGTESTS-LI  
 plugtests-li : discussion list on li interoperability matters (2 subscribers)

PLUGTESTS-MIP6  
 PLUGTESTS-MIP6 : PLUGTESTS-MIP6 (0 subscribers)

PLUGTESTS-NGN  
 Plugtests-NGN : Discussion list on NGN-VoIP Interoperability matters (6 subscribers)

PLUGTESTS-OSAPARLAY  
 Plugtests-OSAParlay : Discussion list on OSA / Parlay Interoperability matters (3 subscribers)

PLUGTESTS-POWERLINE  
 PLUGTESTS-POWERLINE: DISCUSSION LIST ON POWERLINE INTEROPERABILITY MATTERS (9 subscribers)

PLUGTESTS-R-IPV6  
 Plugtests-R-IPV6 : Discussion list on Remote IPv6 Interoperability matters (1 subscriber)

PLUGTESTS-R-IPV6-COORDINATORS  
 PLUGTESTS-R-IPV6-COORDINATORS : Discussion list for Remote IPv6 coordinators (0 subscribers)

PLUGTESTS-SECURITY  
 PLUGTESTS-SECURITY: Discussion list on security Interoperability matters (2 subscribers)

PLUGTESTS-SIGTRAN  
 Plugtests-Sigtran: Discussion list on SIGTRAN (13 subscribers)

PLUGTESTS-SMS  
 Plugtests-SMS : Discussion list on Wireline SMS Interoperability matters (7 subscribers)

PLUGTESTS-XADES  
 plugtests-xades : discussion list on xades (23 subscribers)

PLUGTESTS\_PARLAYX  
 PLUGTESTS\_PARLAYX (37 subscribers)

PUBLICINTERNETACCESS  
 PublicInternetAccess List (0 subscribers)

RCCBRIEFING  
 RCC Briefing List (47 subscribers)

RT  
 RT Railway Telecommunications (29 subscribers)

RT\_DMO  
 RT\_DMO : RT Direct Mode Operation (16 subscribers)

S1\_ANSI-41  
 s1\_ansi-41: THIS LIST HAS NOW BEEN CLOSED (0 subscribers)

S1\_CAMEL  
 s1\_camel : THIS LIST HAS NOW BEEN CLOSED (0 subscribers)

S1\_CHARGING  
 s1\_charging : THIS LIST HAS NOW BEEN CLOSED (0 subscribers)

S1\_DISCUSS  
 s1\_discuss : THIS LIST HAS NOW BEEN CLOSED (0 subscribers)

S1\_HANDOVER  
 s1\_handover : THIS LIST HAS NOW BEEN CLOSED (0 subscribers)

S1\_IP  
 s1\_ip : THIS LIST HAS NOW BEEN CLOSED (0 subscribers)

S1\_LCS  
 s1\_lcs : THIS LIST HAS NOW BEEN CLOSED (20 subscribers)

S1\_MM  
 smg1 : list for s1\_mm : THIS LIST HAS NOW BEEN CLOSED (0 subscribers)

S1\_MULTICALL

[s1\\_multicall](#) : THIS LIST HAS NOW BEEN CLOSED (*0 subscribers*)  
[S1 PRESENCE](#)  
[s1\\_presence](#): THIS LIST HAS NOW BEEN CLOSED (*0 subscribers*)  
[S1 QOS](#)  
[s1\\_qos](#) : THIS LIST HAS NOW BEEN CLOSED (*0 subscribers*)  
[S1 SMS](#)  
[s1\\_sms](#) : THIS LIST HAS NOW BEEN CLOSED (*0 subscribers*)  
[S1 VHE](#)  
[s1\\_vhe](#) : THIS LIST HAS NOW BEEN CLOSED (*0 subscribers*)  
[SA1 OSA](#)  
[sa1\\_osa](#) : THIS LIST HAS NOW BEEN CLOSED (*0 subscribers*)  
[SAFETY](#)  
[safety](#) : etsi tc for telecommunications equipment safety (*48 subscribers*)  
[SAFETY-JWG-TC108](#)  
[SAFETY-JWG-TC108](#) list (*23 subscribers*)  
[SAFETY-JWG-TC108 ANNOUNCE](#)  
[SAFETY-JWG-TC108 ANNOUNCE](#) list (*8 subscribers*)  
[SAFETY ANNOUNCE](#)  
[safety announcement list](#) (*17 subscribers*)  
[SCP ANNOUNCE](#)  
[ETSI Project Smart Card Platform - THIS LIST HAS NOW BEEN CLOSED](#) (*0 subscribers*)  
[SCP PLENARY](#)  
[ETSI Project Smart Card Platform - Plenary discussion](#) (*323 subscribers*)  
[SCP REQUIREMENTS](#)  
[SCP\\_REQUIREMENTS](#) : REQUIREMENTS WORKING GROUP (*192 subscribers*)  
[SCP TECHNICAL](#)  
[SCP\\_TECHNICAL](#) : Technical Working Group (*262 subscribers*)  
[SCP WG1](#)  
[THIS LIST HAS BEEN CLOSED](#) (*15 subscribers*)  
[SCP WG2](#)  
[THIS LIST HAS BEEN CLOSED](#) (*14 subscribers*)  
[SCP WG3](#)  
[THIS LIST HAS BEEN CLOSED](#) (*18 subscribers*)  
[SDHA](#)  
[SDHA](#) : LI Rapporteurs list for DTR/LI-00020 Closed (*51 subscribers*)  
[SDR-CR](#)  
[SDR-CR](#) : Software defined radio-cognitive radio list (*40 subscribers*)  
[SES](#)  
[ses](#) : etsi tc satellite earth stations and systems (ses) (*46 subscribers*)  
[SES AES](#)  
[ses\\_aes](#) : [List closed] etsi tc ses wg on aeronautical satellite earth stations (*2 subscribers*)  
[SES ANNOUNCE](#)  
[: etsi tc satellite earth stations and systems announcement list](#) (*17 subscribers*)  
[SES BSM](#)  
[ses\\_bsm](#) : ses\_bsm (broadband satellite multimedia) (*45 subscribers*)  
[SES BSM C2P](#)  
[BSM C2P work items](#) (*20 subscribers*)  
[SES ECAS](#)  
[SES\\_ECAS](#):European Commission Activity support (*5 subscribers*)  
[SES ECSS](#)  
[SES WG on European Co-operation for Space Standardisation](#) (*1 subscriber*)  
[SES GMR](#)  
[ses\\_gmr](#) : etsi tc ses geo\_mobile\_radio (gmr) interface working group (*12 subscribers*)  
[SES GMR ANNOUNCE](#)  
[ses gmr announce list](#) (*4 subscribers*)  
[SES HARM](#)  
[listname](#) : SES\_HARM (*13 subscribers*)  
[SES MAR ESV](#)  
[ses\\_mar\\_esv](#) : SES working group on Maritime Earth Stations on Board Vessels (*16 subscribers*)

SES\_SATEC  
SES\_SatEC: Satellite Emergency Communications (22 subscribers)

SES\_SDR  
ses\_sdr : ses\_sdr satellite digital radio (31 subscribers)

SES\_SUMTS  
ses\_sumts : working group on s-umts (28 subscribers)

SES\_SUMTS\_ANNOUNCE  
ses s-umts announce list (16 subscribers)

SG\_GNGN  
Global NGN stakeholders group on future services and capabilities for NGN (45 subscribers)

SG\_UCI  
SG\_UCI : UCI stakeholders group on UCI matters (29 subscribers)

SOSINTEROP  
SOSinterop: SOS Interoperability workshop series (159 subscribers)

SRS-ANNOUNCE  
srs-announce : srs-announce list (0 subscribers)

SRS-TEST-ANNOUNCE  
srs-test-announce : srs-test-announce list (0 subscribers)

STF217  
stf217 : mail discussion and distribution list for stf217 Closed (0 subscribers)

STF260  
STF260: STF 260 steering group on NGN OSS activity Closed (0 subscribers)

STF268  
STF268: STF 268 stakeholders group closed (44 subscribers)

STF280  
STF280: STF 280 AND STF 281 STAKEHOLDERS GROUP Closed (31 subscribers)

STF283-SC  
STF283-SC (18 subscribers)

STF293SG  
STF293SG : STF 293 steering group closed (9 subscribers)

STF297  
STF297: STF 297 stakeholders group on CTS closed (14 subscribers)

STF315  
STF315 : Stakeholders group (SG) (23 subscribers)

STF321  
STF321 Stakeholders Group (SG) (21 subscribers)

STQ  
stq : for anyone interested in the work of etsi stq (87 subscribers)

STQ\_AURORA  
stq\_aurora : etsi stq aurora project for distributed speech recognition (20 subscribers)

STQ\_MOBILE  
stq\_mobile : QoS aspects of mobile telephony (68 subscribers)

TBINFO  
tbinfo : tbinfo list has been closed 09/03/2005 (0 subscribers)

TC106X-4  
tc106x-4 : safety joint working group tc 106x wg4 (30 subscribers)

TC106X-7  
tc106x-7 : safety joint working group tc 106x wg7 (24 subscribers)

TESTCOM\_2003\_AC  
TESTCOM\_2003\_AC : Arora Coordinators (0 subscribers)

TESTCOM\_2003\_SC  
TESTCOM\_2003\_SC : Steering Committee (0 subscribers)

TESTCOM\_2003\_TPC  
TESTCOM\_2003\_TPC: TPC Technical Program Committee (0 subscribers)

TESTLIST  
TESTLIST : List for ListServ tests (1 subscriber)

TEST\_DB  
list for testing dbms feature (1 subscriber)

TETRA

TETRA : Technical Committee TETRA (56 subscribers)

TETRAMAN  
TETRAMAN : restricted to the ETSI Project TETRA Management Committee (12 subscribers)

TETRAWG1  
No title defined (46 subscribers)

TETRAWG1 ANNOUNCE  
tetrawg1 announce list (16 subscribers)

TETRAWG3  
No title defined (52 subscribers)

TETRAWG31  
TETRAWG31 : General Issues (19 subscribers)

TETRAWG32  
TETRAWG32 : Air interface lowest layers, mainly physical layer (20 subscribers)

TETRAWG33  
TETRAWG33 : Air interface protocols (22 subscribers)

TETRAWG34  
TETRAWG34 : ISI (16 subscribers)

TETRAWG35  
TETRAWG35 : Interworking with other telecommunication networks (19 subscribers)

TETRAWG36  
TETRAWG36 : Supplementary Services (20 subscribers)

TETRAWG37  
TETRAWG37 - SIM (18 subscribers)

TETRAWG38  
TETRAWG38 : PEI (19 subscribers)

TETRAWG3 ANNOUNCE  
tetra wg3announce list (15 subscribers)

TETRAWG4  
No title defined (45 subscribers)

TETRAWG4 ANNOUNCE  
tetra wg4 announce list (20 subscribers)

TETRAWG5  
No title defined (24 subscribers)

TETRAWG5 ANNOUNCE  
tetrawg5\_announce : tetrawg5\_announce list (13 subscribers)

TETRAWG6  
No title defined (44 subscribers)

TETRAWG6 ANNOUNCE  
tetra wg6 announce (17 subscribers)

TETRAWG8  
No title defined (47 subscribers)

TETRAWG8 ANNOUNCE  
tetra wg8 announce list (17 subscribers)

TETRA ANNOUNCE  
etsi project tetra announcement list (15 subscribers)

TFES  
tfes : tfes list (41 subscribers)

TISPAN\_EMTEL  
TISPAN\_EMTEL: TISPAN project EMTEL on Emergency communications (77 subscribers)

TISPAN\_F-MMS  
TISPAN\_F-MMS: TISPAN project F-MMS (66 subscribers)

TISPAN\_FORUM  
TISPAN\_FORUM: TISPAN open list (156 subscribers)

TISPAN\_GEN  
TISPAN\_GEN: technical committee list (490 subscribers)

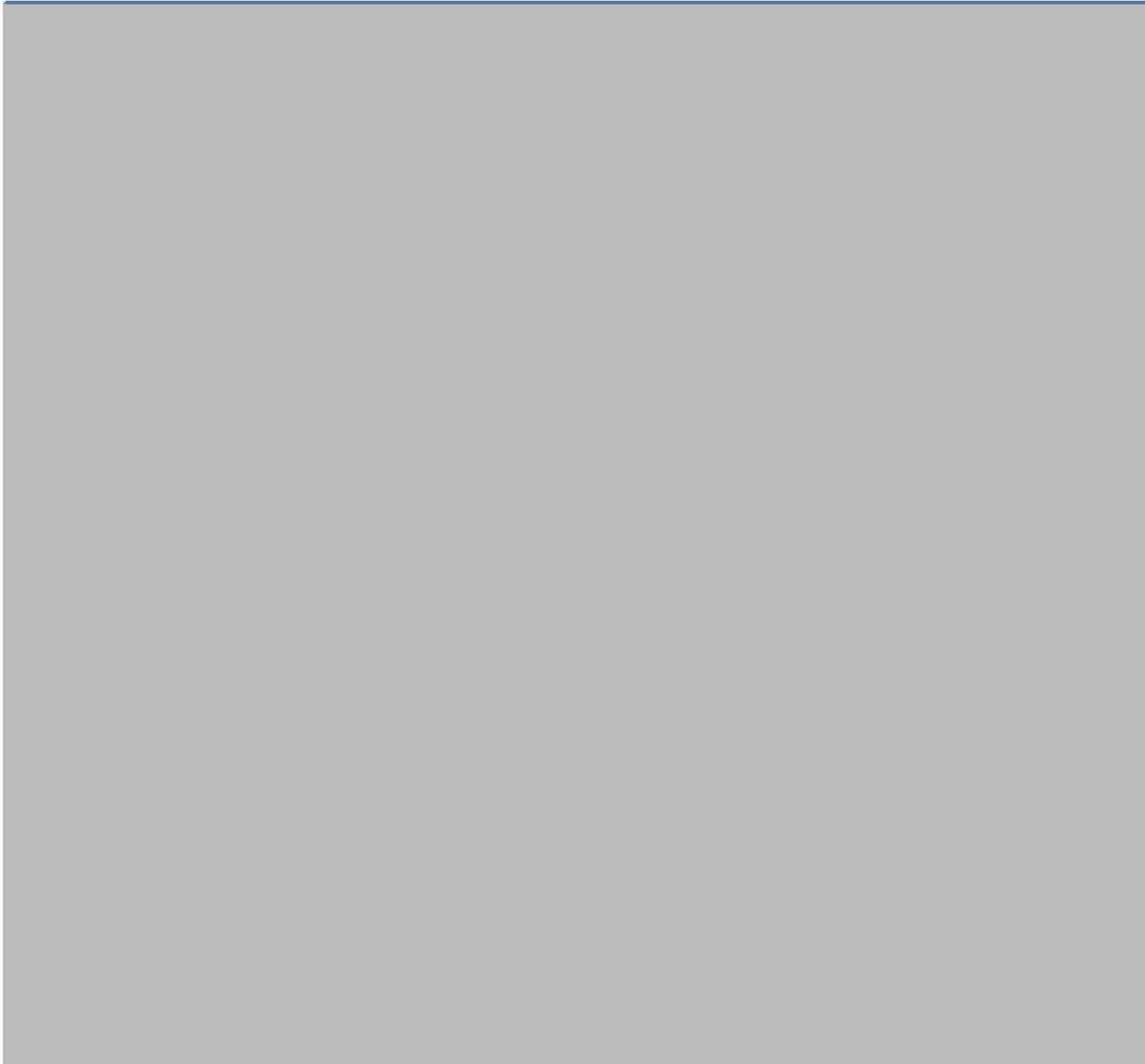
TISPAN\_NGN  
TISPAN\_NGN: technical committee list dealing with NGN Project matters (485 subscribers)

TISPAN\_STF328\_SG  
TISPAN\_STF328\_SG: IMS NNI Interop (21 subscribers)

TISPAN\_WG1  
 TISPAN\_WG1: Services (399 subscribers)  
TISPAN\_WG2  
 TISPAN\_WG2: Architecture (345 subscribers)  
TISPAN\_WG3  
 TISPAN\_WG3: Protocols (404 subscribers)  
TISPAN\_WG4  
 TISPAN\_WG4: Numbering and Routeing (227 subscribers)  
TISPAN\_WG5  
 TISPAN\_WG5: NGN Home Networking (40 subscribers)  
TISPAN\_WG5\_OLD  
 TISPAN\_WG5\_OLD: NGN Home Networking OLD (0 subscribers)  
TISPAN\_WG6  
 TISPAN\_WG6: Testing (106 subscribers)  
TISPAN\_WG7  
 TISPAN\_WG7: Security (279 subscribers)  
TISPAN\_WG8  
 TISPAN\_WG8: Network Management (248 subscribers)  
TM  
 TM : TM Approval by Correspondence list (59 subscribers)  
TM1-ATM  
 tm1-atm : wp3 atm equipment (10 subscribers)  
TM1-GEN  
 tm1-gen : tm1 plenary meetings management (16 subscribers)  
TM1-SDH  
 tm1-sdh : sdh equipment (11 subscribers)  
TM1-TEST  
 tm1-test : wp3-conformance testing (7 subscribers)  
TM1-WP1  
 tm1-wp1 : optical fibres and components (11 subscribers)  
TM1-WP2  
 tm1-wp2 : core networks architecure (9 subscribers)  
TM1-WP3  
 tm1-wp3 : transport equipment, systems and interfaces (14 subscribers)  
TM1-WP4  
 tm1-wp4 : timing and synchronization (6 subscribers)  
TM1\_ANNOUNCE  
 tm1 announce list (6 subscribers)  
TM4  
 tm4 : digital radio relay systems (86 subscribers)  
TM4-WP1  
 tm4-wp1 : tm4-wp1 list closed (45 subscribers)  
TM4-WP2  
 tm4-wp2 : tm4-wp2 list closed (44 subscribers)  
TM4-WP4  
 tm4-wp4 : tm4-wp4 list closed (38 subscribers)  
TM4\_ANNOUNCE  
 tm4 announce list (27 subscribers)  
TM6\_ALL  
 tm6\_all : access networks (architecture, unis, xdsl isdn) (108 subscribers)  
TM6\_ANA  
 tm6\_ana : tm6 access network architecture wp (17 subscribers)  
TM6\_ANNOUNCE  
 tm6 announce list (46 subscribers)  
TMSIX\_OPS  
 TM6 operators group (29 subscribers)  
TM\_ANNOUNCE  
 No title defined (22 subscribers)  
TPLAN

Test Purpose Language (7 subscribers)  
TTCN3  
active\_ttcn3 : mts stf133 ttcn version 3 - active members only (357 subscribers)  
TTCN3CR  
TTCN3CR : TTCN3 Change Request (8 subscribers)  
TTCN3\_DOC  
TTCN3-DOC (13 subscribers)  
USER-INFO  
No title defined (32 subscribers)  
USER ANNOUNCE  
announcement list for the user group (12 subscribers)  
WIG  
wig : wireless lan interworking group LIST CLOSED (2 subscribers)

Note that confidential or sensitive lists may be unlisted. If you know the exact name of the list you are looking for but could not find it on this page, try the [unlisted archive form](#) instead.



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03 August 2007	14:03	<dir> <a href="#">Inbox</a>
12 April 2007	14:29	<dir> <a href="#">Information</a>
29 March 2007	17:26	<dir> <a href="#">Invitation</a>
05 April 2007	10:03	<dir> <a href="#">Joint Meetings</a>
26 June 2007	08:09	<dir> <a href="#">Op</a>
29 March 2007	17:28	<dir> <a href="#">PCG</a>
11 June 2007	14:05	<dir> <a href="#">Specs</a>
29 March 2007	21:08	<dir> <a href="#">tsg_cn</a>
29 March 2007	21:22	<dir> <a href="#">tsg_ct</a>
29 March 2007	21:44	<dir> <a href="#">tsg_geran</a>
29 March 2007	23:10	<dir> <a href="#">tsg_ran</a>
30 March 2007	00:33	<dir> <a href="#">tsg_sa</a>
30 March 2007	01:25	<dir> <a href="#">tsg_t</a>
31 July 2007	08:12	<dir> <a href="#">workshop</a>

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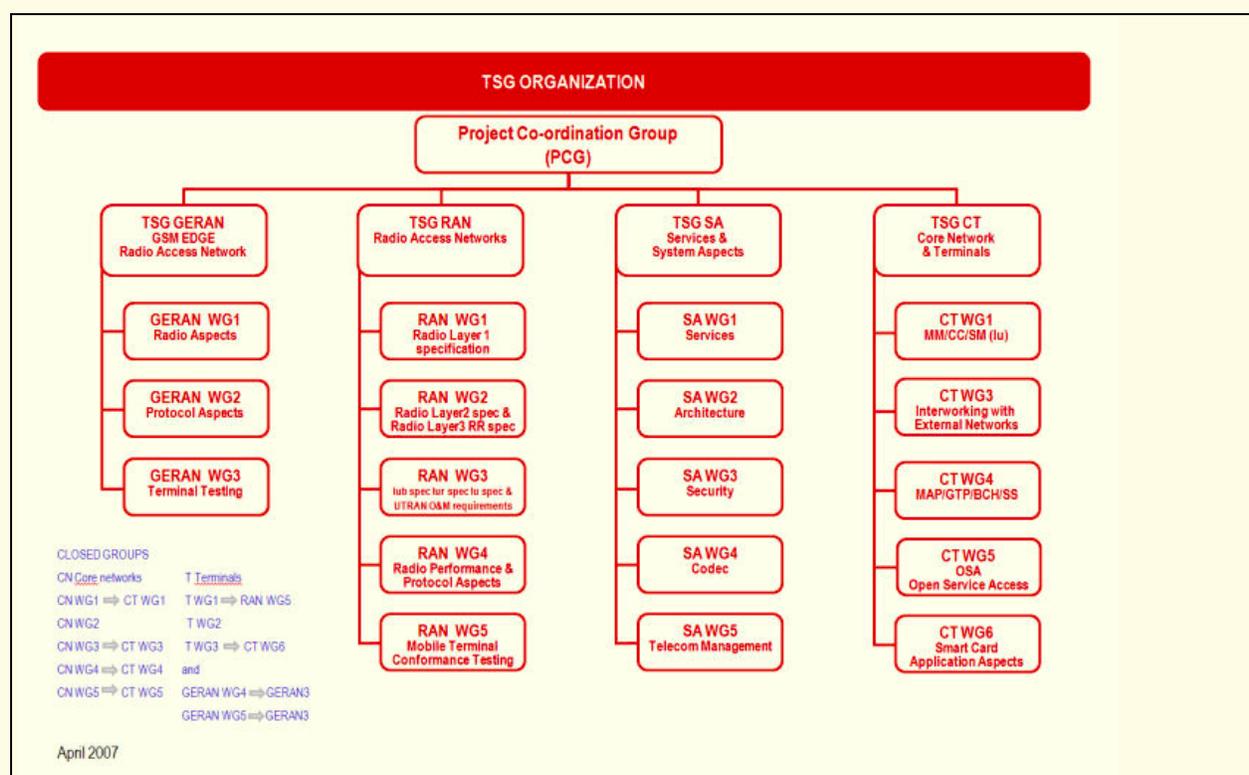
<b>Project Management</b>	<b>Technical Bodies</b>	<b>Delegates Corner</b>	<b>Project Support</b>	<b>Contact 3GPP</b>	<b>Quick Access</b>
About 3GPP	Specifications	Membership	Meetings	Email Lists	FAQ

only search 3GPP site

**Warning: Google cannot search compressed Word files such as meeting contributions**

## TSG ORGANIZATION

Click on any TSG or WG in the chart to go to that Group's home page to find information on its elected officials, its meeting schedule, the Work Items and Specifications for which it is responsible, etc.



[Powerpoint™ version of the chart above](#)

[MCC Task Forces](#)

last updated:

- 2007-05-03: Updated link for TSG GERAN and GERAN WG1 where pointing to wrong page
- 2007-04-24: New orgchart removing closed working groups from the main body of chart, closed groups update
- 2006-07-21: Guidance note added above chart, link to Powerpoint version moved to below chart
- 2005-06-22: New org chart removing closed working groups from main body of chart
- 2005-03-14: Complete update
- 2005-01-31: New TSG structure.



- Project Management
  - Technical Bodies
  - Delegates Corner
  - Project Support
  - Contact 3GPP
  - Quick Access
- About 3GPP
  - Specifications
  - Membership
  - Meetings
  - Email Lists
  - FAQ

[| CN](#) | [CN1](#) | [CN2](#) | [CN3](#) | [CN4](#) | [CN5](#) |  
[| CT](#) | [CT1](#) | [CT3](#) | [CT4](#) | [CT5](#) | [CT6](#) |  
[| GERAN](#) | [GERAN1](#) | [GERAN2](#) | [GERAN3](#) | [GERAN4](#) | [GERAN5](#) |  
[| RAN](#) | [RAN1](#) | [RAN2](#) | [RAN3](#) | [RAN4](#) | [RAN5](#) |  
[| SA](#) | [SA1](#) | [SA2](#) | [SA3](#) | [SA4](#) | [SA5](#) |  
[| T](#) | [T1](#) | [T2](#) | [T3](#) |

**TSG RAN WG1 (Radio layer 1)**

**Overview:**

TSG RAN WG1 works on the physical layer of the radio Interface for UE and UTRAN. This includes the specification of the physical channel structures, the mapping of transport channels to physical channels, spreading, modulation, physical layer multiplexing, channel coding and error detection. The physical layer procedures and the measurements provided to upper layers are specified in WG1 as well.

Useful links and information			
<b>**New: Elections for officials of TSG RAN WG 1**</b>			
<b>About RAN1</b>	<a href="#">List of elected officials</a>	<b>Meetings</b>	<a href="#">Next meeting information &amp; previous meeting reports and documents</a>
	<a href="#">Terms of Reference</a>		<a href="#">Liaisons Statements</a>
<b>Documents</b>	<a href="#">Documents area</a>		<b>General info</b>
	<a href="#">Specifications</a>	<a href="#">Email exploder lists</a>	
	<a href="#">Work items</a>	<a href="#">Contact RAN1 @</a>	

Last update:  
 2007-06-28: Election information added  
 2006-01-09: Election information removed  
 2005-03-24: Election information page link added  
 2005-01-10: Link to meetings page changed  
 2004-11-24: Next meeting information updated

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29 March 2007	21:44	<dir>	<a href="#">AHG1 ITU Coord</a>
10 May 2007	11:42	<dir>	<a href="#">TSG_RAN</a>
24 July 2007	11:11	<dir>	<a href="#">WG1_RL1</a>
26 July 2007	09:33	<dir>	<a href="#">WG2_RL2</a>
12 June 2007	12:39	<dir>	<a href="#">WG3_Iu</a>
27 July 2007	08:45	<dir>	<a href="#">WG4_Radio</a>
13 June 2007	09:09	<dir>	<a href="#">WG5_Test_ex-T1</a>
29 March 2007	23:10	<dir>	<a href="#">WGs_LongTermEvolution</a>

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29 March 2007	21:59	<dir>	<a href="#">3GPP_3GPP2_SCM</a>
29 March 2007	21:59	<dir>	<a href="#">ConferenceCall</a>
05 June 2007	13:55	<dir>	<a href="#">DRAFT_R1_Specs_RP-36</a>
29 March 2007	21:59	<dir>	<a href="#">Invitation</a>
02 March 2007	21:26	218973	<a href="#">R1_CRlist(March-02-07).zip</a>
09 January 2001	16:46	107873	<a href="#">R1_Index(1999).zip</a>
30 October 2001	16:35	83160	<a href="#">R1_Index(2000).zip</a>
06 July 2002	17:26	85559	<a href="#">R1_Index(2001).zip</a>
30 January 2003	20:30	107743	<a href="#">R1_Index(2002).zip</a>
29 March 2004	19:05	127219	<a href="#">R1_Index(2003).zip</a>
17 January 2005	10:27	146600	<a href="#">R1_Index(2004).zip</a>
21 December 2005	10:06	112424	<a href="#">R1_Index(2005).zip</a>
30 December 2006	22:21	196493	<a href="#">R1_Index(2006).zip</a>
02 March 2007	22:37	74176	<a href="#">R1_Index(2007).zip</a>
02 March 2007	21:36	43821	<a href="#">R1_LSList(March-02-07).zip</a>
27 February 2004	22:00	35297	<a href="#">R1_TS&amp;TR;(Feb-27-04).zip</a>
29 March 2007	21:59	<dir>	<a href="#">Templates</a>
29 March 2007	21:59	<dir>	<a href="#">TSGR1_01</a>
29 March 2007	21:59	<dir>	<a href="#">TSGR1_02</a>
29 March 2007	21:59	<dir>	<a href="#">TSGR1_03</a>
29 March 2007	21:59	<dir>	<a href="#">TSGR1_04</a>
29 March 2007	21:59	<dir>	<a href="#">TSGR1_05</a>
29 March 2007	22:00	<dir>	<a href="#">TSGR1_06</a>
29 March 2007	22:00	<dir>	<a href="#">TSGR1_07</a>
29 March 2007	22:00	<dir>	<a href="#">TSGR1_07b</a>
29 March 2007	22:01	<dir>	<a href="#">TSGR1_08</a>
29 March 2007	22:01	<dir>	<a href="#">TSGR1_09</a>
29 March 2007	22:02	<dir>	<a href="#">TSGR1_10</a>
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29 March 2007	22:02	<dir>	<a href="#">TSGR1_13</a>
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29 August 2007	08:41	8668	<a href="#">R1-073787.zip</a>
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17 August 2007	11:50	24181	<a href="#">R1-073791.zip</a>
17 August 2007	11:50	26131	<a href="#">R1-073792.zip</a>
17 August 2007	08:12	160731	<a href="#">R1-073793.zip</a>
15 August 2007	13:31	25690	<a href="#">R1-073794.zip</a>
16 August 2007	09:35	53079	<a href="#">R1-073795.zip</a>
17 August 2007	08:12	145115	<a href="#">R1-073796.zip</a>
17 August 2007	08:12	51472	<a href="#">R1-073797.zip</a>
17 August 2007	08:27	707554	<a href="#">R1-073798.zip</a>
20 August 2007	05:14	53402	<a href="#">R1-073799.zip</a>
17 August 2007	12:24	10209	<a href="#">R1-073800.zip</a>
17 August 2007	12:24	18550	<a href="#">R1-073801.zip</a>
17 August 2007	12:24	97124	<a href="#">R1-073802.zip</a>
17 August 2007	12:24	20978	<a href="#">R1-073803.zip</a>
17 August 2007	12:24	16829	<a href="#">R1-073805.zip</a>
19 August 2007	15:23	84285	<a href="#">R1-073806.zip</a>
17 August 2007	09:17	374888	<a href="#">R1-073807.zip</a>
20 August 2007	05:14	25146	<a href="#">R1-073808.zip</a>
20 August 2007	05:14	12992	<a href="#">R1-073809.zip</a>
20 August 2007	05:14	29236	<a href="#">R1-073810.zip</a>
29 August 2007	08:39	689293	<a href="#">R1-073811.zip</a>
29 August 2007	08:39	44781	<a href="#">R1-073812.zip</a>
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29 August 2007	08:37	40263	<a href="#">R1-073833.zip</a>
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29 August 2007	08:37	22497	<a href="#">R1-073837.zip</a>
29 August 2007	08:37	32773	<a href="#">R1-073838.zip</a>
29 August 2007	08:37	31808	<a href="#">R1-073839.zip</a>
29 August 2007	08:37	45178	<a href="#">R1-073840.zip</a>
29 August 2007	08:37	13526	<a href="#">R1-073841.zip</a>
29 August 2007	08:37	8441	<a href="#">R1-073842.zip</a>
29 August 2007	08:37	40082	<a href="#">R1-073843.zip</a>
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29 August 2007	08:37	59374	<a href="#">R1-073845.zip</a>
29 August 2007	08:37	118775	<a href="#">R1-073846.zip</a>
29 August 2007	08:37	14839	<a href="#">R1-073847.zip</a>
29 August 2007	08:37	8535	<a href="#">R1-073848.zip</a>
29 August 2007	08:37	5574	<a href="#">R1-073849.zip</a>
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29 August 2007	08:37	30620	<a href="#">R1-073851.zip</a>
30 August 2007	12:25	11897	<a href="#">R1-073852.zip</a>
29 August 2007	08:37	24386	<a href="#">R1-073853.zip</a>
29 August 2007	08:37	24355	<a href="#">R1-073854.zip</a>
29 August 2007	08:37	24363	<a href="#">R1-073855.zip</a>
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29 August 2007	08:36	67268	<a href="#">R1-073857.zip</a>
29 August 2007	08:36	8102	<a href="#">R1-073858.zip</a>
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29 August 2007	08:36	22077	<a href="#">R1-073860.zip</a>
29 August 2007	08:36	20499	<a href="#">R1-073861.zip</a>
29 August 2007	08:36	23349	<a href="#">R1-073862.zip</a>
29 August 2007	08:36	22113	<a href="#">R1-073863.zip</a>
29 August 2007	08:36	22581	<a href="#">R1-073864.zip</a>
29 August 2007	08:36	20249	<a href="#">R1-073865.zip</a>
29 August 2007	08:36	22273	<a href="#">R1-073866.zip</a>
29 August 2007	08:36	12565	<a href="#">R1-073867.zip</a>
30 August 2007	12:25	13057	<a href="#">R1-073868.zip</a>
29 August 2007	08:36	6949	<a href="#">R1-073869.zip</a>
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29 August 2007	08:36	61407	<a href="#">R1-073871.zip</a>
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29 August 2007	08:35	1184659	<a href="#">R1-073873.zip</a>
29 August 2007	08:35	57314	<a href="#">R1-073874.zip</a>
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29 August 2007	08:35	22296	<a href="#">R1-073879.zip</a>
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29 August 2007	08:35	9524	<a href="#">R1-073882.zip</a>
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29 August 2007	08:35	14396	<a href="#">R1-073887.zip</a>
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07 September 2007	07:51	9082	<a href="#">R1-073889.zip</a>
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29 August 2007	08:34	158720	<a href="#">Tdoclist RAN1 #50(Aug 2007).xls</a>

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