

0.1 The UMTS vision

The Universal Mobile Telecommunications System (UMTS) aims to offer mobile personalised communications to the mass market regardless of location, network or terminal used. The user will have access to similar services from different networks in a virtual home environment, and a satellite option will provide near global coverage.


This report covers UMTS regulatory licensing conditions that will concern both terrestrial, satellite and public and private operators. It is recognised that the report focuses on Europe (due mainly to the fact that the main contributors have been European manufacturers, operators and regulators who have drawn upon their own experience and knowledge). However it is hoped that Administrations outside Europe will be able to use this report to assist them in the forthcoming licensing of UMTS. The UMTS Forum trusts that future reports will be able to reflect an increasingly global outlook with worldwide membership of the UMTS Forum increasing.

The UMTS Forum believes that UMTS must be market driven within a regulatory environment that takes account of the two overriding principles of encouraging competition at both the infrastructure and service level along with the wider picture of the legitimate interests of consumers, business and society.

Consistent with the above principles of competition and with the existing regulatory framework for telecommunications this report develops recommendations to advise Administrations on aspects of licensing UMTS in the context of limited spectrum availability. Concerning the process of allocating UMTS licences, a general principle is raised that any qualification process prior to the main selection should be open and non-discriminatory to remove only obviously unsuitable candidates and need not directly test technical ability.

0.2 Public Systems

Whilst most countries in Europe have now issued licences for second-generation networks and services, the UMTS Forum believes that these licences should not determine the number of licences available for UMTS. Licences should be issued in a fair, open and non-discriminatory manner having regard to the amount of spectrum needed per operator.



The spectrum for FPLMTS/IMT-2000 was designated at WRC-92. At EU level, a Decision on the co-ordinated introduction of UMTS is presently being developed¹ obliging all Member States to make the complete band designated for UMTS available. The UMTS Forum supports this fully and encourages Administrations to make this spectrum available as soon as possible in order to ensure effective competition in the UMTS market from the outset.

Experimental licences have also been considered in this report for use before the year 2002 to enable manufacturers to test their equipment and confirmed UMTS operators to test both commercial and technical options. In order to do this the UMTS Forum advocates the need for access to frequencies as soon as possible.

Whilst Directives and decisions have been issued which cover many areas at a very high level, there are still some areas that require further clarification such as the possibilities of refarming second-generation spectrum. The UMTS Forum urges studies to be undertaken to establish the technical and operational feasibility for refarming second-generation spectrum as soon as possible and encourages industry consultation on the possibility of refarming for existing mobile operators. Consultation leading to administrative decisions will assist not only existing operators but also new entrants, since all potential UMTS operators require clarity and certainty to assess the true market place value of UMTS.

Whilst on the whole the UMTS Forum would advocate national licences which cover a significant proportion of the population, based firstly on the success of national second-generation licences, and secondly the spectral efficiency of such licences, in special circumstances regional licences may prove to be more advantageous. This may be in either special geographic circumstances or as a temporary solution where there may not be enough spectrum available at the time of service introduction. However it should be borne in mind, that regional licences can lead to 'cherry-picking' of lucrative areas and inefficient use of spectrum and should therefore be given careful consideration.

Notwithstanding the high level licensing framework, this report pays particular attention to licence conditions. The starting point is that the difference between fixed and mobile networks will be increasingly blurred in the future. The UMTS Forum encourages Administrations to allow this convergence to happen by market forces, rather than defining a specific path for it.

Roll out and coverage obligations are used by Administrations to encourage the efficient use of spectrum by not leaving it unused longer than necessary and to encourage infrastructure competition. However, the UMTS Forum recognises that there is a danger of regulation driving the market if the level, if any, is set too high.

¹ COM (1998) 58 final, Proposal for a European Parliament and Council Decision on the co-ordinated introduction of mobile and wireless communications (UMTS) in the Community.

With regard to roaming, the UMTS Forum believes that international roaming should be encouraged following the success of GSM roaming. The UMTS Forum holds the view that the regulatory framework should permit operators to enter into national roaming agreements on commercial terms, both between third- and second-generation operators (and vice versa) and between third-generation operators only. National roaming, although it may, in some circumstances, be considered to offer benefits to users and lower the barrier to entry for new operators, should generally only be agreed on a commercial basis. The UMTS Forum considers that mandatory roaming should only be introduced after careful consideration by any Administration, as it could be seen to remove the incentive for infrastructure competition and innovation. For that reason it should only be applied in exceptional cases based on a national situation. Facility and infrastructure sharing on a commercial basis should be encouraged provided that competition in infrastructure is not jeopardised. There may also be benefits to be gained from facility sharing from an ecological point of view although it is recognised that there may be property rights problems associated with this. Mandatory infrastructure sharing is as a matter of course undesirable except in specific cases where there is limited access (such as tunnels or bridges).

0.3 Private networks

Whilst much consideration has been given both technically and commercially to public operators, consideration should also be given to the need to resolve spectrum and licensing issues for private UMTS networks at an early stage in the licensing process. The UMTS Forum considers that where possible general authorisations (i.e. no requirement for an individual licence) should be used for access. In addition the UMTS Forum urges the relevant bodies to define the standards and to clarify the rules for use of the unpaired bands. Further clarification is also required of the status of public use of private networks.

0.4 Satellite Systems

Satellite systems have an important role to play where terrestrial UMTS is either not technically or economically viable. There is a need for a harmonised approach to frequency management of the satellite component on at least a regional basis. A milestone procedure (e.g. CEPT/ERC/Decision (97) 03, Annex 2) to support satellite due diligence and the removal of 'paper' satellites should be extended beyond Europe. The UMTS Forum considers that extension of satellite network and services licensing to the OSS procedure would be desirable.