INTERNATIONAL TELECOMMUNICATION UNION

RADIOCOMMUNICATION STUDY GROUPS

5TH MEETING OF WORKING PARTY 8F
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Working Party 8F

Working Group Vision

" Preliminary draft Liaison Statement" to ITU-R JTG 1-6-8-9

1) What is your understanding of the term "terrestrial wireless interactive multimedia systems" and its scope?

In order to better understand the phrase "terrestrial wireless interactive multimedia systems", it may be useful to consider some of the relevant terms that have already been used at the ITU.

Relevant terms already defined by ITU	
From Recommendation ITU-R M.1224:	
Interactive service	A service which provides the means for the bidirectional exchange of information between users or between users and hosts. NOTE 1 – Interactive services are subdivided into three classes of services: conversational services, messaging services and retrieval services.
Multimedia service	A service in which the interchanged information consists of more than one type (e.g. video, data, voice, graphics). Multimedia services have multivalued attributes which distinguish them from traditional telecommunication services such as voice or data. A multimedia service may involve multiple parties, multiple connections, the addition/deletion of resources and users within a single communication session.
From ITU-T Recommendation I.113:	
107 multimedia service	A service in which the interchanged information consists of more than one type, such as text, graphics, sound, image and video.

108 broadcast	A value of the service attribute "communication configuration", which denotes unidirectional transmission to all users. NOTE – This term should not be confused with the term "broadcasting service" as defined in the ITU Radio Regulations.
113 interactive service	A service which provides the means for bidirectional exchange of information between users or between users and hosts. Interactive services are subdivided into three classes of services: *conversational services*, *messaging services* and *retrieval services*.
COMMENT from WP8F: WP8F understands that, in the definitions of multimedia service, the interchange of different types of information is assumed to be simultaneous.	

Terrestrial wireless interactive multimedia is a concept that is emerging in the marketplace and should not be confused with an existing or planned system; it is, rather, more of a vision of future wireless applications which may require some consideration of the traditional barriers and borderlines between the existing Radio Services.

WP8F believes that IMT-2000 could be regarded as forming a part of a future terrestrial wireless interactive multimedia concept.

Possible driving factors in the further development of the terrestrial wireless interactive multimedia applications are:

– the demand for fully interactive applications offering simultaneous and comprehensive high quality seamless video entertainment, music, news on demand, and audio/voice information exchange and messaging services; in the homes; in the stores; in the offices and when travelling;

– the demand for satisfactory delay times to the end-user, adaptable teletraffic arrangements and ubiquitous services offering true global roaming; and,

– the demand for simultaneous access to several multimedia applications (broadcasting, entertainment and telecommunication e.g. watching a movie on demand together with a friend or playing on-line games and communicating with the other players) from a single multi-functional personal assistance terminal type of device.

All in all, the terrestrial wireless interactive multimedia concept may be regarded as a multi-network, multi-access and multi-service arrangement containing convergence in access, transport, core network, management, content, information exchange and database functions and capabilities. These functions and capabilities will likely include integral seamless broadcasting, mobile and fixed wireless access, location and navigation functions, on demand, supporting person-to-person, person-to-many persons, many persons to-person, person-to-machine and machine-to-machine communications.

2) What specific characteristics (operational and technical) are considered to make a system suitable for terrestrial wireless interactive multimedia applications?

A radio link, which is capable of transporting simultaneously traffic for many different user services, and supporting various applications (e.g. voice, IP, etc).

According to the trend of services, the future systems that embrace the terrestrial wireless interactive multimedia concept, are expected to support:

– seamless services across various wireless systems and networks;

– global roaming service between existing systems and the future systems;

– appropriate technologies to employ the future services.

3) What are the various applications and technologies that may fall under terrestrial wireless interactive multimedia systems?

Examples include IMT-2000, Radio Local Area Networks (RLANs), Fixed Wireless Access (FWA), TICS ("Information Transportation Services") and possibly some multicasting and broadcasting capabilities.

4) What is the current situation regarding spectrum use by the applications and technologies identified in question 3 above?

Some of the systems considered as terrestrial wireless interactive multimedia systems are Mobile Service, some are Fixed Service (and some are Broadcasting Service?)

[Further information required from the Spectrum WG]

5) What are the sharing scenarios with respect to other uses of the same spectrum?

[Further information required from the Spectrum WG]

6) What are, if any, the regulatory impediments to the development of terrestrial wireless interactive multimedia systems?

As far as IMT-2000 is concerned, "WG-CIRC could see no possible regulatory impediments related directly to IMT-2000" (Doc 8F/184, page 22).

We believe that the distinctions between the Fixed, Mobile and Broadcasting Service, used to be clear and unambiguous, and the traditional national regulatory processes and the organisation of the ITU-R were designed to reflect those distinctions. Regulatory regimes may have to adapt as other systems are now appearing which could fall into more than one of these Services, and therefore there could be confusion (e.g. is a fixed telephone line, which uses mobile phone technology for transmission, the Fixed or Mobile Service?)

In addition, there may be national regulatory restrictions on the nature of the content which may be supplied and/or received over the service, and those restrictions may vary depending on the nature of the service (e.g. broadcasting, web browsing, etc).

[Further contributions are invited relating to the barriers and borderlines between the existing Radio Services.]

7) What are the possible trends in this area in the next 5-10 years and how will they impact on responses to the above questions?

We believe that new developments in technology, and convergence of services, will increasingly challenge the regulatory impediments which are now starting to appear.

The mobile multi-service networks will develop further forming a truly global mass-market phenomenon, and will become a dominant model for all further mainstream development of

communications. This transformation will come as a result of a number of communication mega-trends:

– The phenomenal growth of mobile telephony and its expansion from voice services to the multi-services networks that will bring the Internet into the pocket of the user and create a new world of personalised, info-centric, always-on and always-with-you services.

– The extraordinary growth of the Internet services and applications.

– The large volumes of new mobile telephones and devices shipped every year – more than 500 million in 2001 –and wireless enabled communicating PCs, cars and appliances; bringing ever more powerful communicating devices in the hands and the homes of the users.

– The compelling case for e-business.

– New technologies and standards enabling affordable fixed broadband access and multi-service networking.

– Network convergence, moving from vertically integrated "single"–service networks to open, horizontally layered, multi-service networks.

– Intensified competition and specialisation driven by deregulation and globalisation.

– The availability and quality of the Internet and mobile services to developing and developed countries at an extremely increasing penetration rate.

These trends are driven by the large investments in current and future business opportunities enabled by the rapid convergence.

8) Is there any other information that the Working Party considers would be relevant to assist JTG 1-6-8-9 in its work?

[No answer]