Question itu-r 289/4

**Interactive satellite broadcasting systems (television, sound and data)[[1]](#footnote-1)\*, [[2]](#footnote-2)\*\***

(2012)

The ITU Radiocommunication Assembly,

considering

*a)* the progress in information processing, storage and transmission technology;

*b)* the development of advanced broadcasting transmission channels (cable, satellite master antenna, terrestrial relay, or direct satellite reception);

*c)* the development of enhanced and digital television systems using these channels;

*d)* the need within such systems of interactivity for multimedia applications;

*e)* interactivity could effectively extend the capability of TV receivers to provide access to Internet web content, thus help in bridging the digital divide between urban and rural areas;

*f)* the increasing opportunities to introduce new types of data broadcasting and video streaming;

*g)* the development of transmission methods suitable for use in receiving from viewers return information related to the programme material (vision, sound and data);

*h)* the large number of domestic receivers likely to be impacted by the adoption of interactive satellite services and the resulting need for a common world-wide system architecture,

decides that the following Questions should be studied

1 What are the possible methods and channels for interactive satellite broadcasting systems received through cable, satellite master antenna, terrestrial relay, switched network or direct satellite reception?

2What interactive services (or near-interactive services) are likely to be needed and what are their requirements for the return channel?

3What are the appropriate management methods and transmission means techniques that could be employed for such return channels?

4What methods could be adopted to utilize existing frequency band allocations for such return data channels, in order to achieve conservation of resources required?

5What are the commonalities for such return data channels with those being adopted for other interactive television broadcasting systems?

6 What possibilities exist for the world-wide adoption of common return channel capabilities to operate under different transmission media and what technical parameters for return data channels are appropriate in various types of interactive satellite broadcasting systems?

7 What are the possible return link protocols used for interactive and non-interactive applications?

8 What characteristics needed for interactive satellite services should be identified to increase the flexibility of such systems?

9 What are the performance parameters, i.e. quality of service (QoS) parameters?

10 What provisions could be incorporated to facilitate anonymous reception of broadcast programmes by consumers not wishing to invoke interactivity?

11 What is the most appropriate method for the network synchronization when using interactive satellite broadcasting channel?

NOTE – See Recommendations ITU-R BT.1434 and ITU-R BT.1435,

further decides

1that the results of the above studies should be included in appropriate Recommendations and/or Reports;

2that the above studies should be completed by 2025.

Category: S1

1. \* This Question should be brought to the attention of the International Electrotechnical Commission (IEC), the International Standardization Organization (ISO) and the Telecommunication Standardization Sector of the ITU and to Radiocommunication Study Groups 5 and 6. [↑](#footnote-ref-1)
2. \*\* This Question should be studied in conjunction with Question ITU-R 285/4. [↑](#footnote-ref-2)