QUESTION ITU-R 130-4/6

Digital interfaces for production, post-production and international exchange of sound and television programmes for broadcasting

(2009-2012-2013-2019-2023)

The ITU Radiocommunication Assembly,

considering

*a)* that the practical implementation of television and sound production requires definition of the details of various studio interfaces and the data streams traversing them;

*b)* that the ITU-R has established Recommendations on various types of television image and sound formats;

*c)* that ITU-R has established Recommendations on digital interfaces for various types of television image formats, in parallel and serial forms, for coaxial and optical cables for production, post production and international exchange of programmes;

*d)* that ITU-R has also established Recommendations on digital audio interfaces for production, post production and international exchange of programmes;

*e)* that ITU-R has been studying image and sound formats for advanced immersive audio-visual systems, which may require higher data rate interfaces;

*f)* that programme content and related data can be transferred either as a continuous stream or in the form of packets;

*g)* that high-speed IP transmission over wide area telecommunication networks including wireless networks has become available;

*h)* that IP interfaces can transport various signals, including real-time uncompressed audio/video signals, real-time compressed audio/video signals and associated metadata in addition to non-real-time data;

*i)* that networked production and post-production systems should be constructed from interoperable pieces of equipment having standardized common interfaces and control protocols;

*j)* that the transport mechanism should operate independently of the type of payload;

*k)* that specifications should cover the possibility of conveying sound or any other ancillary signals through the interface, taking into account the original source timing;

*l)* that for operational and economic reasons it is desirable to investigate whether the specification should also cover the possibility to use the same interface to transport the various image formats given in ITU-R Recommendations,

decides that the following questions should be studied

1 What parameters are necessary to define specified digital interfaces including IP-based and optical ones for the image and/or sound formats covered by ITU-R Recommendations?

2 What transport and control protocols are necessary to define interfaces for networked production and post-production systems?

3 What are the performance requirements (e.g. network latency and transmission errors) for the network used in programme production and exchange to ensure both real-time and non‑real-time transfers of programme material?

4 What ancillary signals including payload identification[[1]](#footnote-1) and metadata are required to be carried across the interfaces with the video and audio signals, and what are the parameters necessary to define specifications for these signals?

5 What technical requirements should be specified for the associated digital sound channels?

6What are the parameters that should be specified to use the same interface to also transport the various payloads given in ITU-R Recommendations?

7 What provisions should be taken to ensure security in the transport of broadcast programme signals and devices connected with interfaces?

further decides

1 that the results of the above studies should be included in (a) Report(s) and/or Recommendation(s);

2 that the above studies should be completed by 2027.

Category: S2

1. Identification of video, audio and ancillary data carried on a digital interface or individual links. [↑](#footnote-ref-1)