

Transport of Time-Sensitive Streaming Audio/Video in Bridged Local Area Networks

Boilerplate Draft PAR version 0.01

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Title (4)

Draft: IEEE Standard for Local and Metropolitan Area Networks –
Transport and Application Layer Interface for Time-Sensitive
Audio/Video Streaming Applications

PAR Scope (13)

- This standard specifies the protocol, data encapsulations and procedures used to ensure that audio and video based end stations can communicate and interoperate using standard lower layer networking services that meet the requirements for time sensitive applications.
- For operation using Ethernet Layer 2 services, it specifies the use of 802.1AS, 802.1Qat, 802.1Qav.
- For operation using Internet Protocol Layer 3 services, it specifies the use of RTP, UDP and IP.
- Operations of other lower layer protocols will not be precluded, but they will be beyond the initial scope of this standard.

PAR Scope (13)

Is the completion of this document contingent upon the completion of another document?

- This standard is not contingent on the completion of any other documents

PAR Purpose (14)

- This standard enables stations attached to bridged LANs that meet the respective jitter, wander, and time synchronization requirements for time-sensitive applications to communicate and interoperate for audio and video streams using a common packet format and similar abstracted stream setup, control and teardown protocols.

PAR Reason (15)

- A great deal of work and effort of late has been applied to the development and specification of 802 based networks that provide networking services for real time applications. To further the work and to provide maximum interoperability of real-time audio and video streaming applications, additional protocol definition is needed above layer 2
- Unfortunately for end stations wishing to provide real time audio and video applications, there are numerous protocol mechanisms and formats often based on specifics of the lower level network protocol specifics.
- For IEEE 1394 bus based networks, a working implementation exists today that meets most of the needs for real-time audio and video streams and that is embodied in the IEC 61883 series standards.
- Unfortunately for both IEEE 802 and IETF Internet Protocol technologies, the IEC 61883 series of standards uses in both its mechanisms and formats specific low level services and functions in IEEE 1394 that are different and/or not provided by IEEE 802 or IETF Internet Protocol.
- With all of the above, the reason for a new standard is to provide a more common set of protocol encapsulations and mechanisms by starting with 61883 type of protocol encapsulations and mechanisms and modifying them to accommodate alternate lower layer protocols besides IEEE 1394.

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- << Editor's note: Not sure what this slide is for>>