

## Audio/Video Layer 3 Transport SG

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### Draft PAR for Audio/Video Layer 3 Transport

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### Abstract

This document provides a proposed PAR IEEE MSC Audio/Video Layer 3 Transport project. The PAR form is copied from the IEEE web site official PAR submission form.

The PAR Copyright Release and [Signature Page](#) must be submitted by FAX to +1-732-875-0695 to the [NesCom Administrator](#).

If you have any questions, please contact the NesCom Administrator.

**Once you approve and submit the following information, changes may only be made through the NesCom Administrator.**

<b>Submittal Email:</b> suman.sharma@intel.com	<input type="button" value="Change Submitter Email"/>
<b>Type of Project:</b> PAR for a New Standard	
<b>1.1 Project Number:</b> P	
<b>1.2 Type of Document:</b> Standard for	
<b>1.3 Life Cycle:</b> Full	
<b>1.4 Is this project in ballot now?</b> No	
<b>1.5 Is the balloting group aware of the PAR modification?</b>	
<b>2.1 Title of Standard:</b> Standard for Layer 3 Transport Protocol for Time Sensitive Applications in Local Area Networks	
<b>3.1 Name of Working Group:</b>	<input type="button" value="Add/Change Working Group"/> Layer 3 Transport for Time Sensitive Applications
<b>Contact information for Working Group Chair</b> TBD	
Email: Phone:	
<b>Contact Information for Working Group Vice Chair</b> TBD	
Email: Phone:	
<b>3.2 Sponsoring Society and Committee:</b> IEEE Computer Society/Microprocessors and Microcomputers (C/MS)	
<b>Contact information for Sponsor Chair:</b> Bob Davis Email: bob@scsi.com Phone: 408-857-1273	
<b>Contact information for Standards Representative:</b>	
Email: Phone:	

**3.3 Joint Sponsor: / ()****Contact information for Sponsor Chair:**

Email:

Phone:

**Contact information for Standards Representative:**

Email:

Phone:

**4.1 Type of Ballot:** Individual**4.2 Expected Date of Submission for Initial Sponsor Ballot:** 2008-12**4.3 Projected Completion Date for Submittal to RevCom:** 2009-06**5.1 Approximate number of people expected to work on this project:** 30**5.2 Scope of Proposed Standard:**

This standard specifies the protocol, data encapsulations, connection management and presentation time procedures used to ensure interoperability between audio and video based end stations that use standard networking services provided by all IEEE 802 networks meeting QoS requirements for time-sensitive applications by leveraging the Real-time Transport Protocol (RTP) family of protocols and IEEE 802.1 Audio/Video Bridging (AVB) protocols.

**5.3 Is the completion of this standard is dependent upon the completion of another standard: Yes****If yes, please explain:**

This standard will rely upon:

- IEEE standard for Local and Metropolitan Area Networks: Timing and Synchronization for Time-Sensitive Applications in Bridged Local Area Networks (P802.1AS)
- IEEE standard for Local and Metropolitan Area Networks: Virtual Bridged Local Area Networks - Amendment 9: Stream Reservation Protocol (SRP) (P802.1Qat)
- IEEE standard for Local and Metropolitan Area Networks: Virtual Bridged Local Area Networks - Amendment 11: Forwarding and Queuing for Time-Sensitive Streams (P802.1Qav)

**5.4 Purpose of Proposed Standard:**

This standard will facilitate interoperability between stations that stream time-sensitive audio and/or video across bridged and routed LANs providing time synchronization and latency/bandwidth services by defining the packet format and stream setup, control, synchronization and teardown protocols by leveraging Real-time Transport Protocol (RTP) family of protocols and IEEE 802.1 AVB protocols.

**5.5 Need for the Project:**

Increasingly, entertainment media is digitally transported. Streaming audio/video and interactive applications over bridged and routed LANs need to have comparable real-

time performance with legacy analog distribution. There is significant end-user and vendor interest in defining a simple yet common method for handling real-time audio/video suitable for consumer electronics, professional A/V applications, etc. RTP is one of the most common protocols used to stream real-time media over network, but it lacks various time sensitive and QoS features. IEEE 802.1AVB TG is extending the LAN to provide these services for time sensitive applications. This standard will allow 802.1 QoS services to be used by RTP.

## **5.6 Stakeholders for the Standard:**

### **Intellectual Property**

**6.1.a.** Has the IEEE-SA policy on intellectual property been presented to those responsible for preparing/submitting this PAR prior to the PAR submittal to the IEEE-SA Standards Board? Yes

If yes, state date: 2007-08-27

If no, please explain:

**6.1.b.** Is the Sponsor aware of any copyright permissions needed for this project? No

If yes, please explain:

**6.1.c.** Is the Sponsor aware of possible registration activity related to this project? Yes

If yes, please explain: **There is a possibility of needing to define and/or utilize a distinct ether-type, stream, or other packet/properties identifier.**

**7.1 Are there other standards or projects with a similar scope? No**

If yes, please explain:

**and answer the following:** Sponsor Organization:

Project/Standard Number:

Project/Standard Date: 0000-00-00

Project/Standard Title:

### **7.2 Future Adoptions**

**Is there potential for this standard (in part or in whole) to be adopted by another national, regional, or international organization? No**

If Yes, the following questions must be answered:

Technical Committee Name and Number:

**Other Organization Contact Information:**

**Contact person:**

**Contact Email address:**

**7.3 Will this project result in any health, safety, security, or environmental guidance that affects or applies to human health or safety? No**

If yes, please explain:

### **7.4 Additional Explanatory Notes: (Item Number and Explanation)**

802.1 AVB term in 5.2 refers to following three specifications,

- IEEE standard for Local and Metropolitan Area Networks: Timing and Synchronization for Time-Sensitive Applications in Bridged Local Area Networks (P802.1AS)
- IEEE standard for Local and Metropolitan Area Networks: Virtual Bridged Local Area Networks - Amendment 9: Stream Reservation Protocol (SRP) (P802.1Qat)

- IEEE standard for Local and Metropolitan Area Networks: Virtual Bridged Local Area Networks - Amendment 11: Forwarding and Queuing for Time-Sensitive Streams (P802.1Qav)

RTP term in 5.2 refers to IETF RFC 3550 - RTP: A Transport Protocol for Real-Time Applications

**8.1 Sponsor Information:**

Is the scope of this project within the approved scope/definition of the Sponsor's Charter? Yes

If no, please explain: