



# IEEE 1722

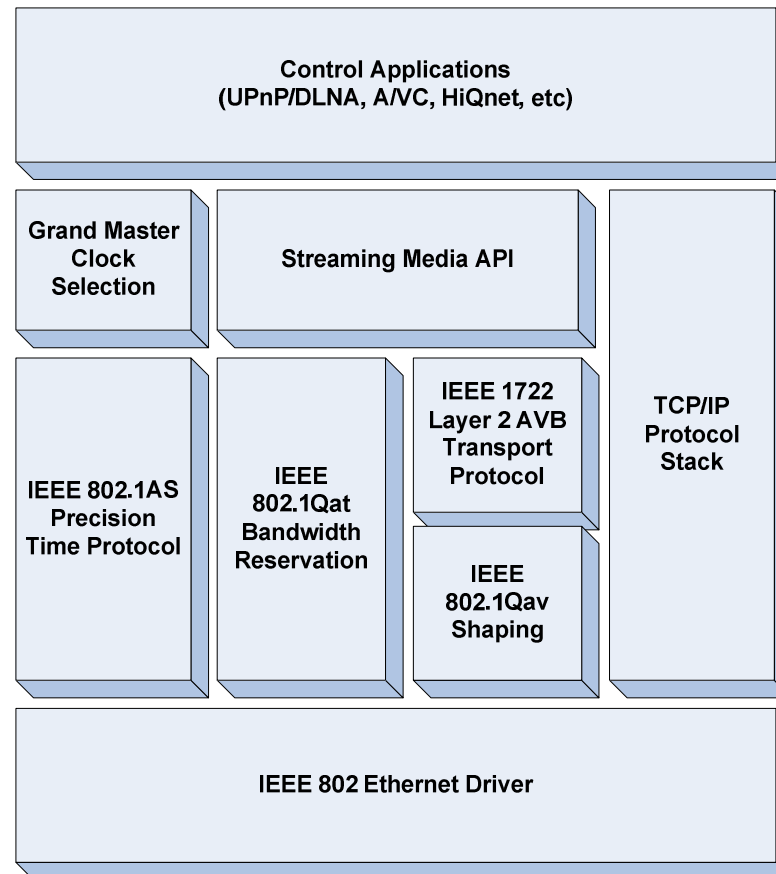
## Layer 2 AVB Transport Protocol

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## What is the purpose of the Transport Protocol?

- **IEEE 1722 aids interoperable streaming by defining:**
  - Media formats and encapsulations
  - Synchronization mechanisms

## Where does the transport protocol fit?

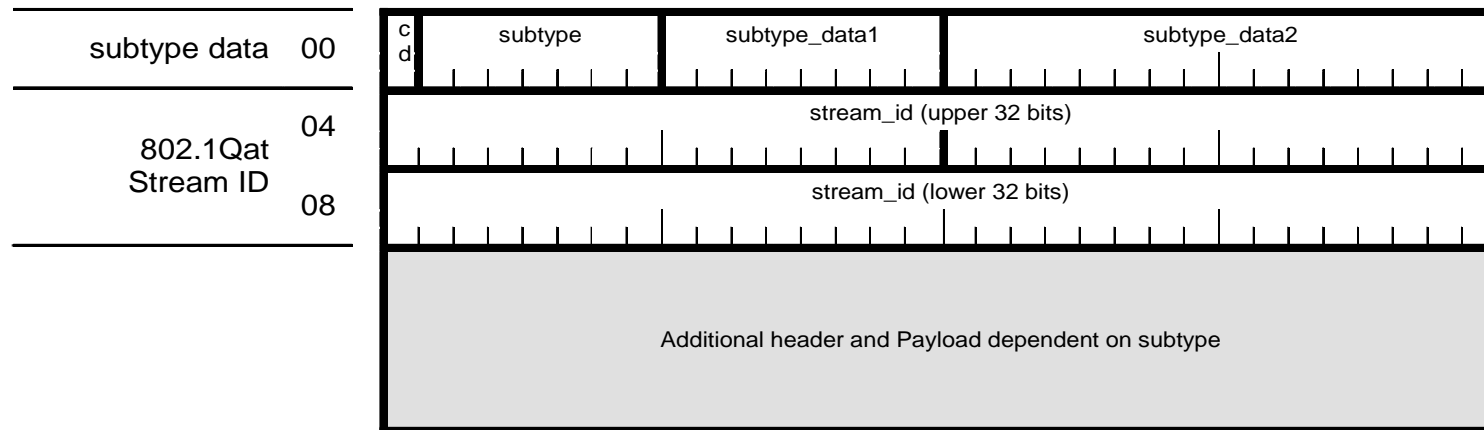


## Media types

- Formats based on IEC 61883 1-8
  - **61883-2 SD-DVCR**
  - **61883-4 MPEG2-TS Compressed Video**
  - **61883-6 Uncompressed Audio**
  - **61883-7 Satellite TV MPEG**
  - **61883-8 Bt.601/656 Video**
  - **IIDC Uncompressed Industrial Cameras**
  
- IEC 61883 was defined by IEEE 1394 FireWire

# Encapsulation

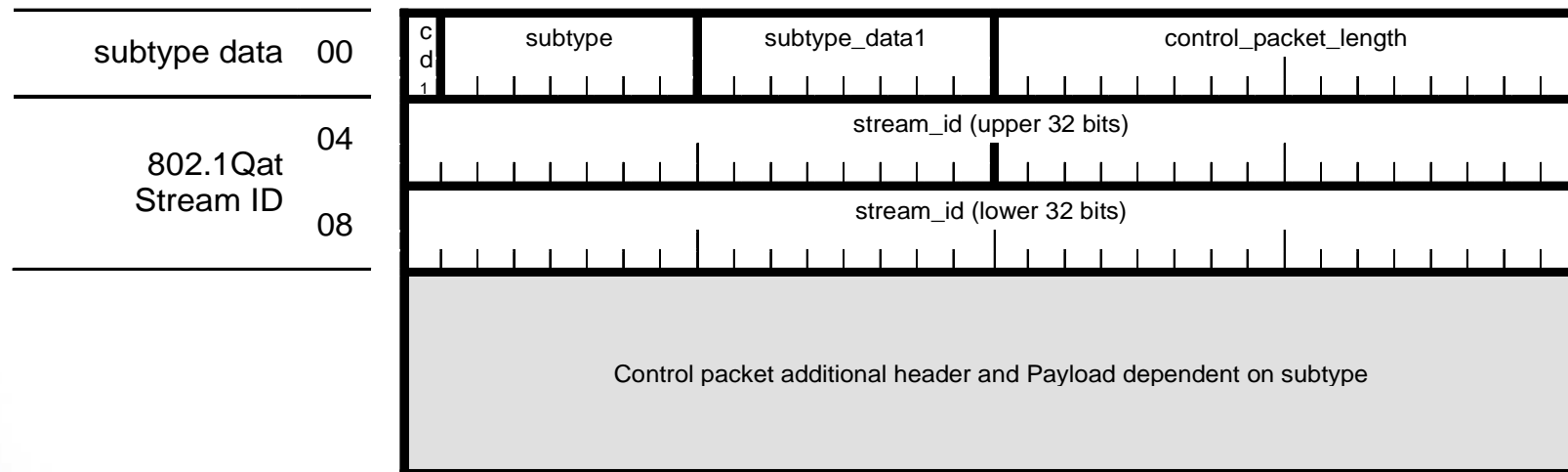
## 1722 Header





# Encapsulation

## 1722 Command/Control Header

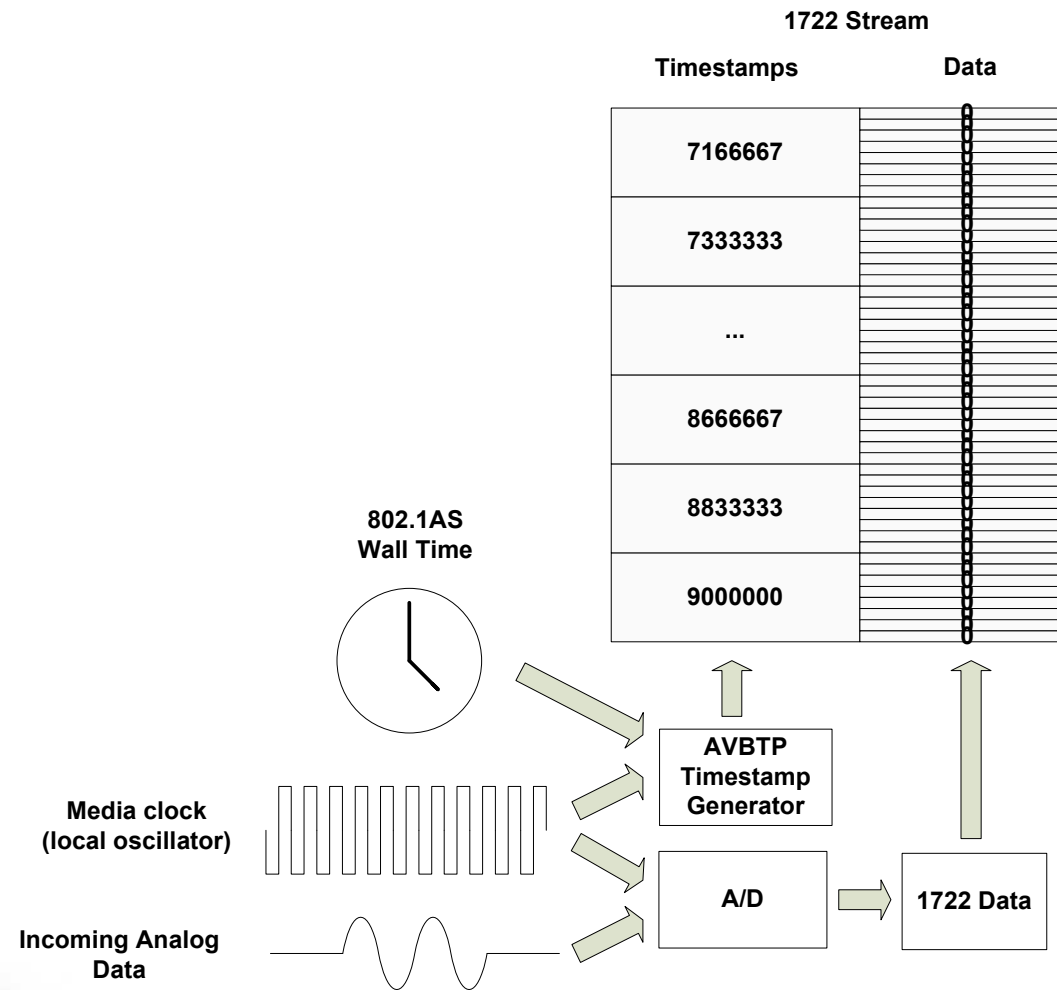


## **Synchronization mechanisms enable:**

- Presentation Time
- Media clock recovery
- Latency normalization

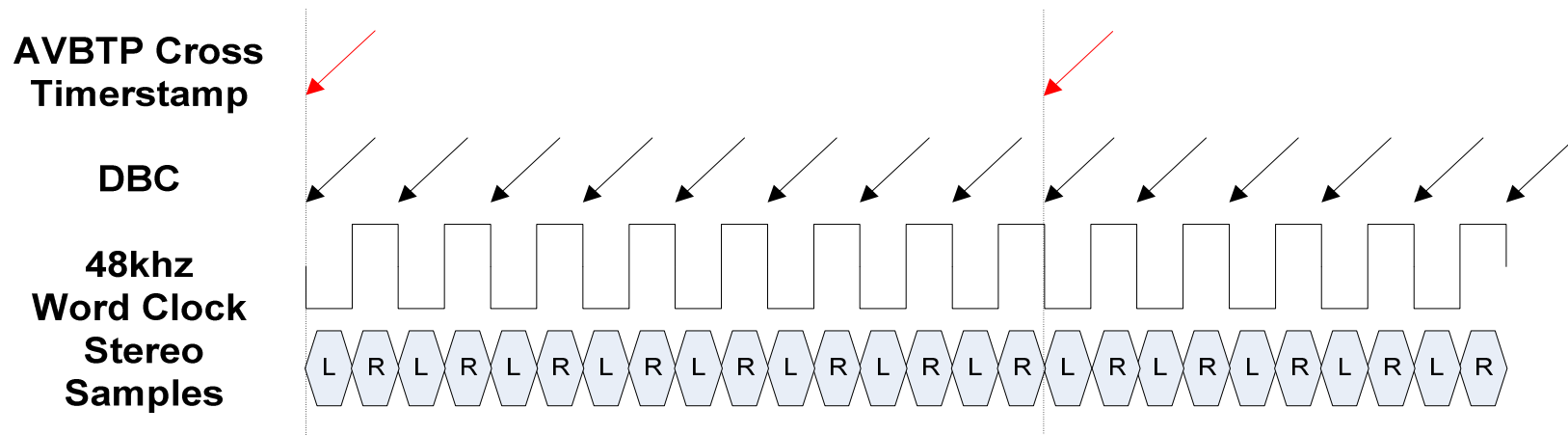


# Outgoing Stream

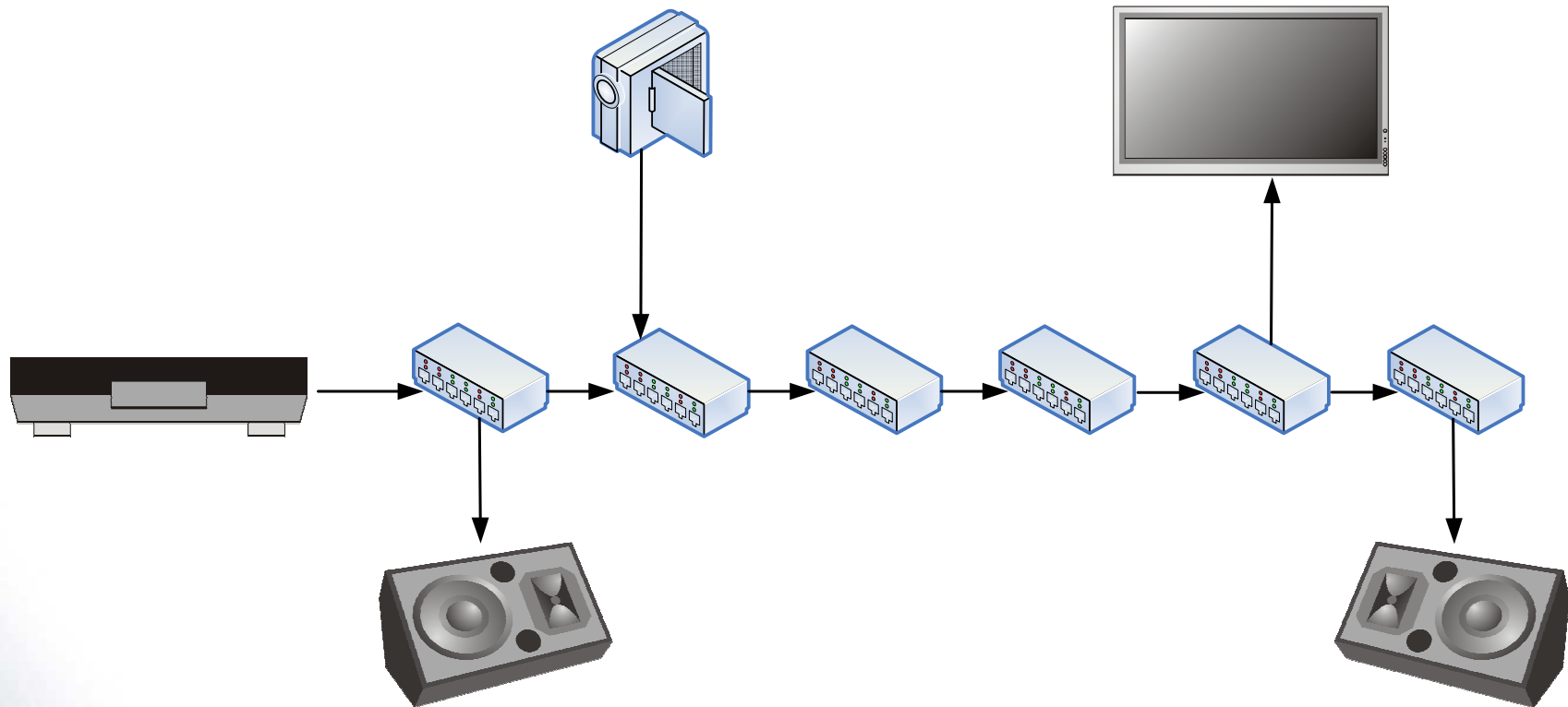




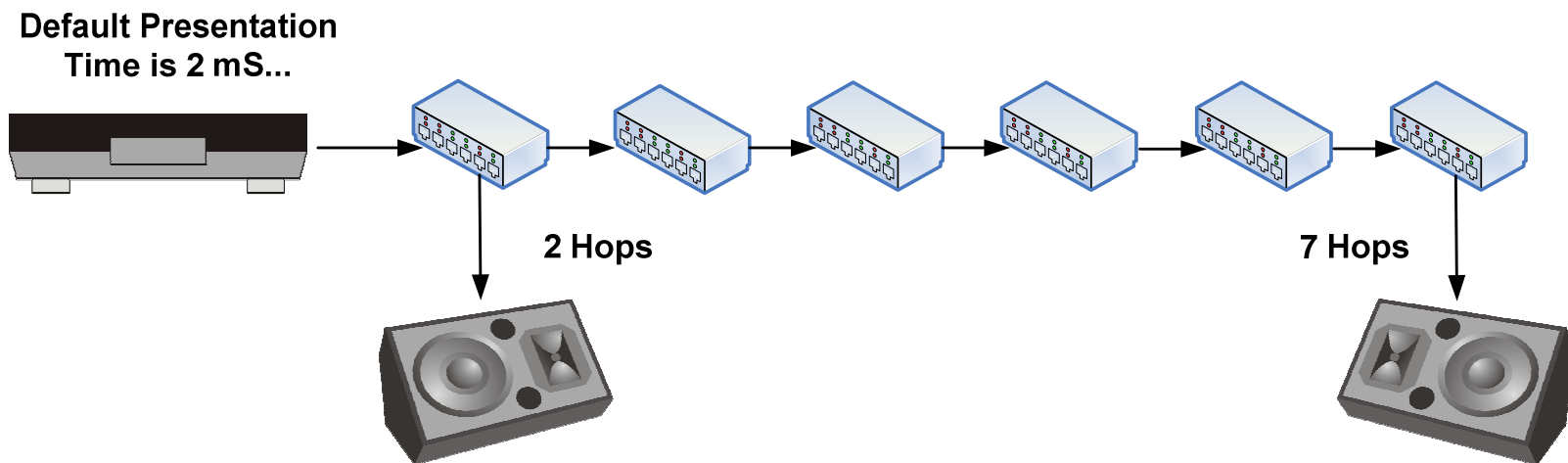
# Media clocks are derived from Cross-Timestamping



## Using Presentation Time for media clock recovery allows multiple simultaneous clock domains

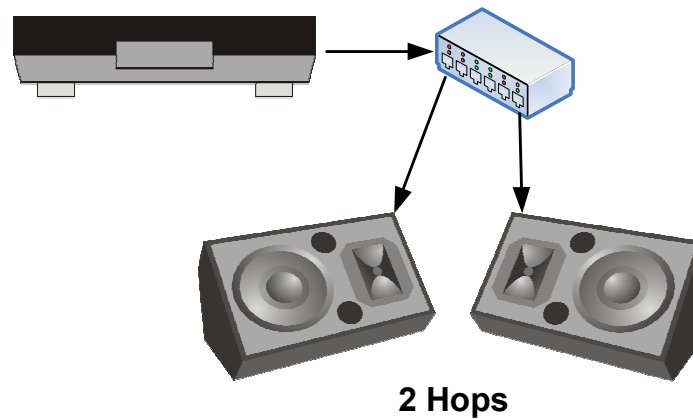


# Latency Normalization



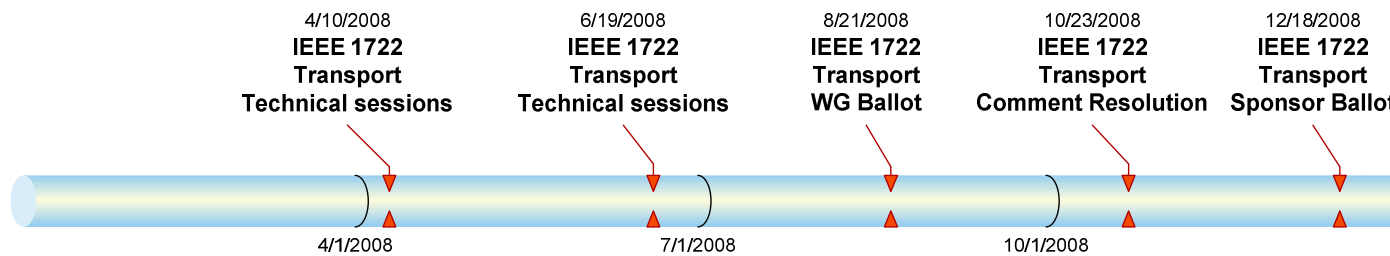
## Default Presentation Time is 2 ms...

... but Presentation Time  
can be dialed down



**Talker is responsible for setting delay...**

# IEEE 1722 Standardization Timeline



## More info...

- Website
  - <http://grouper.ieee.org/groups/1722/>
- Email reflector
  - subscribe avbtp <FirstName> <LastName> to [ListServ@ieee.org](mailto:ListServ@ieee.org)
- Weekly phone conferences
  - The AVB L2 Transport Protocol Working Group holds weekly phone conferences on Mondays at 2:00 p.m. Pacific/Los Angeles time.
  - Phone bridge: +1.866.888.5021 or +1.630.693.2119, Access code: 8451103
- Face-to-face meetings every two months





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