

*Asynchronous streams*  
*A compatible extension to 1394-1995*

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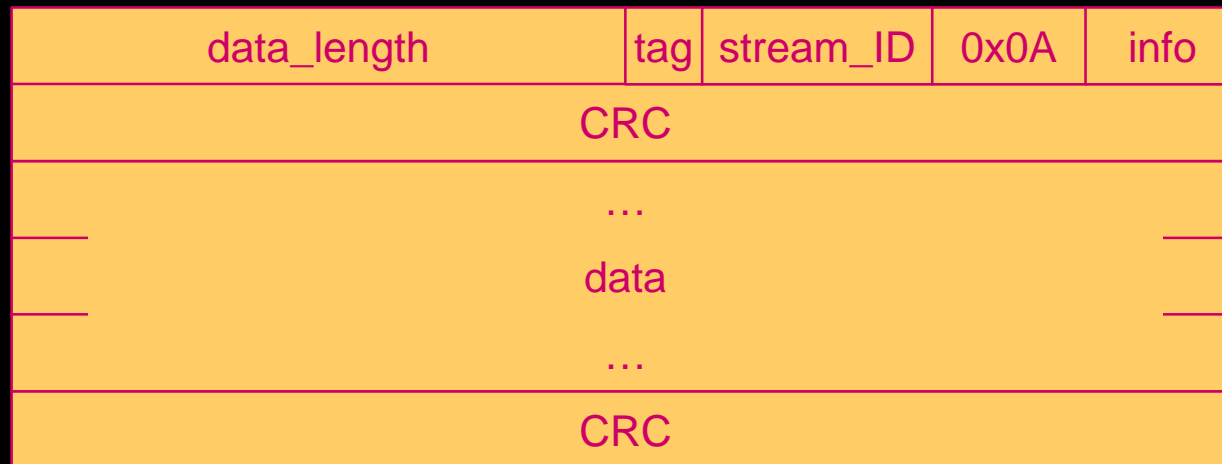
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# *What is an asynchronous stream?*

- A **flow of data** from talker(s) to listeners
- **Not** memory mapped
  - No destination address
- **Not** acknowledged
  - Higher level protocols handle this
- **No** need for bounded **latency**
  - Reasonable “best effort” is good enough

# Stream packet



- Reuse of 1394-1995 isochronous packet
- Subdivide streams with *tag* field
- Application-dependent *info*

# *Stream differentiators*

- Asynchronous
  - Resources
    - Stream ID  
(*aka* channel)
  - **Variable** quality of service
  - Hardware filterable
- Isochronous
  - Resources
    - **Bandwidth**
    - Channel
  - **High** quality of service
  - Hardware filterable
- Except for **quality of service**, the two stream types are essentially similar

## *Silicon compatibility*

- “Loose” isochronous on receive
  - Most links support
  - Only mode for OpenHCI
- Transmit outside of isochronous period
  - Possible; no hardware support for CRC
  - OpenHCI specifies support
- At modest cost of bandwidth reservation, all silicon is 100% **compatible today**