

A new live transport technique is emerging that uses the public internet and the very simple file transfer protocol known ubiquitously as HTTP.



IP Network Protocols for Video Transport

or ... **MPEG-DASH** for Real Time Primary
Distribution



Microsoft



Smooth Streaming



Http Live Streaming

Adobe



Http Dynamic Streaming

- ISO/IEC 23009-1 specification is COMPLEX
- Profiles, IOPs, and Extensions

Interoperability Points

- ✓ MP4 files
- ✓ H.264/AVC
- ✓ HE-AAC
- ✓ SMPTE-TT
- ✓ DRM
- ✓ Live and VOD

ISO file

moov

...other boxes

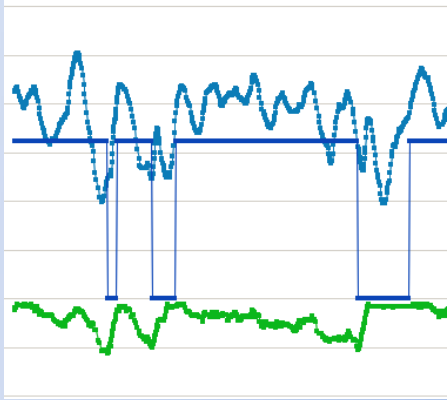
trak (video)

trak (audio)

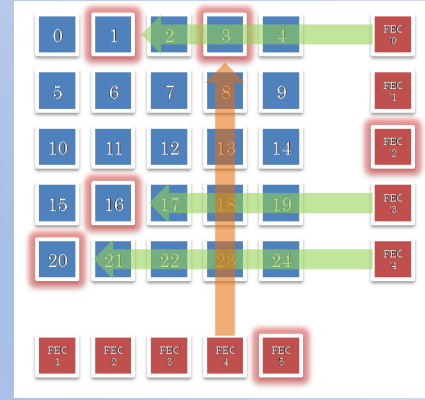
mdat

Interleaved, time-ordered, video
and audio frames

Network Errors Recovery HTTP compared with UDP



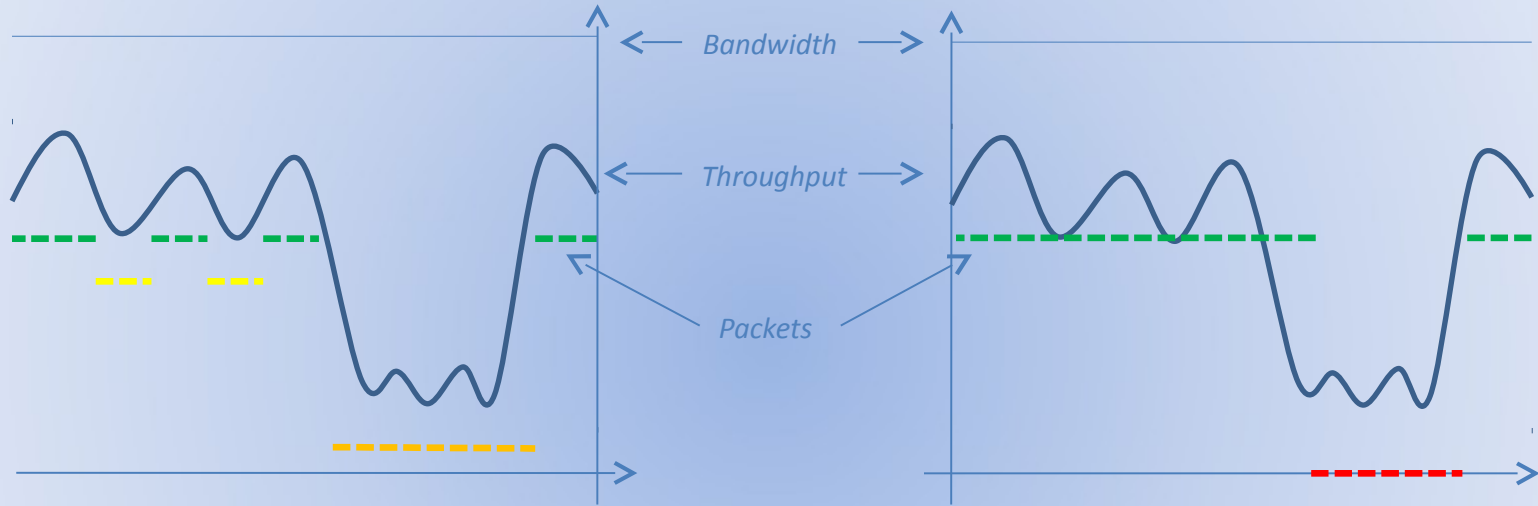
*Correct Errors by using
ARQ and Application
Layer ABR*



*Correct Errors using
FEC and Application
Layer ARQ*

Quality of Service

HTTP compared with UDP

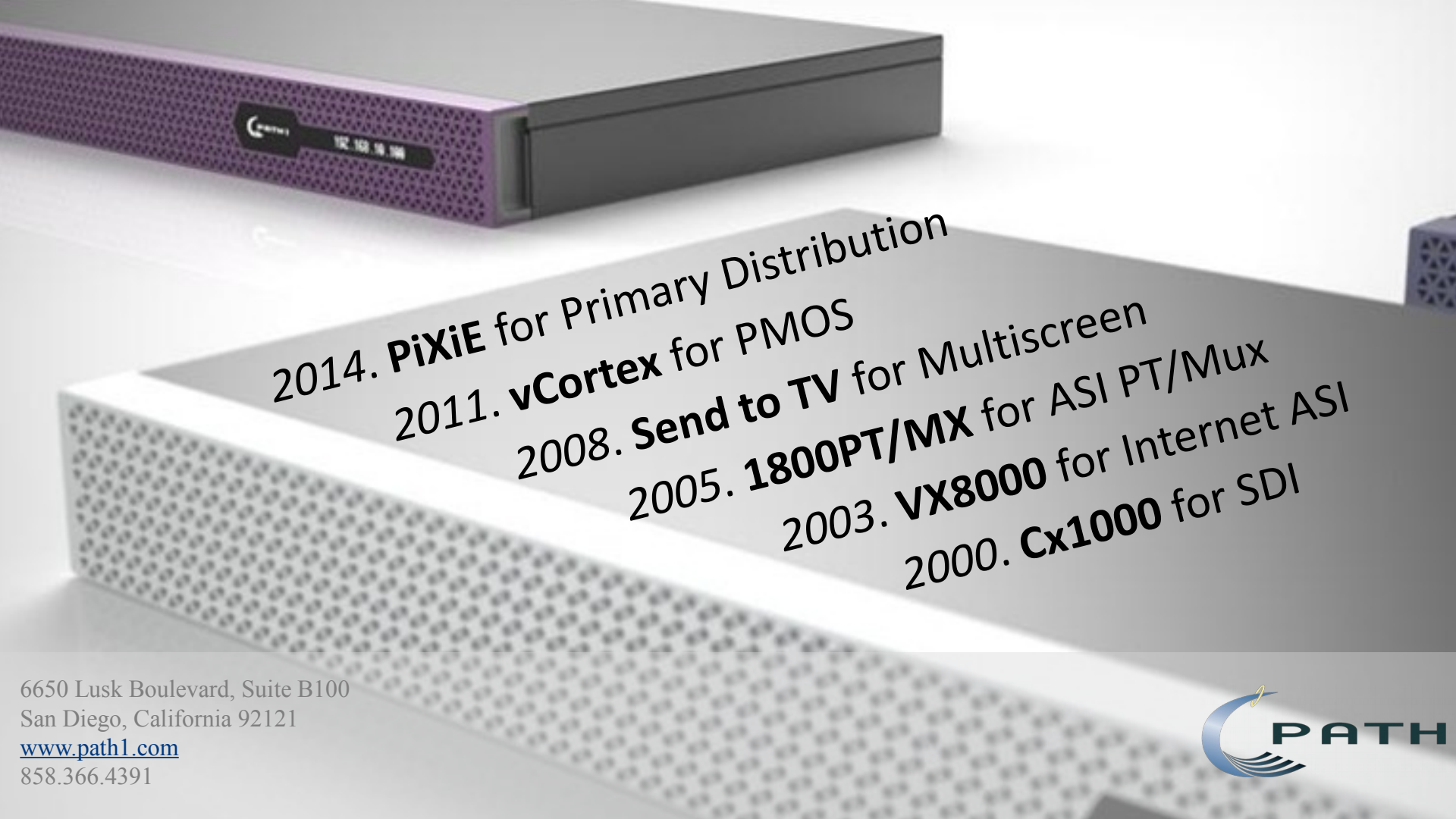


When throughput is reduced, ABR with TCP maintains a reduced Quality of Service while UDP simply fails.

With HTTP, press GO and see results.

Or configure your **LAN**, **Firewall**, and **ISP** to play nice with your UDP Service.





2014. **PIXiE** for Primary Distribution

2011. **vCortex** for PMOS

2008. **Send to TV** for Multiscreen

2005. **1800PT/MX** for ASI PT/Mux

2003. **VX8000** for Internet ASI

2000. **Cx1000** for SDI

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Thank You

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<http://videoservicesforum.org>

