

Why Not H.264

Non-technical issues

What do we mean by H.264 anyway?

- 29 different parts of a standard
- Tons of profiles and parameters
- Interoperability requires *agreement*
- We can't agree until we know what we're talking about

What Is Required To Use H.264

- An implementation you can use
 - Software
 - May need hardware support
- Patent Licenses
 - MPEG-LA H.264 patent pool license
- An acceptable field of use
- A company to take out the licenses
- An accounting to figure out what you pay
 - What are you counting?
 - When do you count it?
- Money to pay the license fees and royalties

Software/Hardware Implementations

- Separately-licensed implementation required
- Open source: x264
 - Available under GPL license
 - Code not as well-tuned for real-time as VP8/libvpx
- Commercial implementations -- require licenses, license/support fees, and royalties
- Evaluations require licenses/NDAs

Hardware implementation

- Wild variations in what profiles are supported
- Decoders in devices far outnumber encoders
- Codecs are tuned for a particular application
 - High resolution = low compression (photo)
 - Low bandwidth = no real-time (video)
 - Outside target parameters = bad quality
- H.264 HW behind private APIs
 - iOS is an example of this

When do we have to pay?

- Terms not publicly published.
- Schedule A: Personal and Consumer
 - Without remunerations
 - Including *internal* business
- Schedule B: Pay for show
 - Per transmission
 - Per broadcaster
- Schedule C: What does not fit into the above
 - Oops - there is no section C.
- All cases impose business model limitations.
- Imposes a barrier for entering the browser market.

"Just Use The Platform"

- Remember the variability?
 - Some platforms have good support, but don't make it available.
 - Some platforms have terrible support.
 - Some platforms have NO support.
 - Some platforms ARE the product.
- Sensible products want to make sure it has *something* available - this is the MTI!
- There's no rebate for "I shipped this, but I don't think it's used much".

VP8 Licensing

- One, PUBLIC, statement to read.
- NO counting required.
- NO paperwork to sign (unless you want to)
- Proposed mutual protection agreement (CCL):
 - CCL Members are protected from each others patents (broad license to all members)
 - CCL Members do not have to identify covered patents (clean and simple)
 - CCL Members can terminate their patent license if another member sues them (you can get out).
- Hardware IPR is available free of charge too.

Sources

- draft-burman-rtcweb-h264-proposal-00
- draft-dbenham-webrtc-videomti-00
- draft-marjou-rtcweb-video-codec-00
- http://www.mpegla.com/main/programs/avc/Documents/AVC_TermsSummary.pdf
- http://www.iso.org/iso/standards_development/patents