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.iso.org/iso/standards_development/patents