RTP Payload Format for H.264 Video – draft-wang-avt-rfc3984bis-01

Ye-Kui Wang, Nokia
ye-kui.wang@nokia.com

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Outline

• New technical changes to RFC 3984 compared to -00
• Open issues
• Question to WG
New technical changes (1)

• Removed the use of external means for indicating which packetization mode in use

• Added spatial-resolution
  – Semantics: preferred width and height, in pixels
  – There is one open issue relating to this
New technical changes (2)

• SDP offer/answer
  – Level downgrade: If a level is offered, any lower level of the same profile is automatically offered, including level 1b.
  – Removed the restriction that sprop-parameter_sets in an SDP answer shall be equal or a superset of that in the offer.
    • It seems to be a clear mistake in RFC 3984, because the restriction seriously limits separate encoding optimizations in the two sides, and it basically disallows level downgrade
    • However, this change affects backward compatibility with RFC 3984
  – Removed parameter-add
    • Affect backward compatibility with RFC 3984 for implementations using this parameter with value 0 (the default value with the absence is 1)
    • But on the other hand, there seemed to be reason to have this if above regarding sprop-parameter_sets is agreed.
Open issue – parameter sets

• Are the two changes (in the previous slide) that affect backward compatibility fine to have?

• How does the offerer and answerer negotiate the use of out-of-band transmission of parameter sets?
  – If one side does not include sprop-parameter-sets in SDP, then both sides MUST agree not to do out-of-band parameter sets transmission?
Open issue – spatial-resolution

• Terminology: use “pixel dimension” instead of “spatial-resolution”?

• The use in offer/answer: what if the answerer has a different preferred spatial resolution?

• How was resolution agreed between the offerer and the answerer per RFC 3984? Through sequence parameter sets? What if out-of-band transmission of parameter set is not used?
Request and question to WG

• Question
  – Take this work as a WG item?
    • Intention by SVC payload design team to make the SVC payload draft based on this draft instead of RFC 3984. Therefore, the progress of this draft will affect the SVC draft progress
      – Because the open issues for this draft are all valid for the SVC draft
    • Agreed earlier to integrate draft-ietf-avt-rtp-h264-params-01 when this draft becomes an WG item