RTP Payload Format for MVC Video –
draft-wang-avt-rtp-mvc-01

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Outline

• MVC introduction
• Summary of the draft
• Changes to -00
• Question to WG
Multiview video coding

- Coding video sequences captured by multiple cameras from the same scene
Example: 3D TV

VIEW-1
VIEW-2
VIEW-3
VIEW-N

Multi-view video encoder

Channel

Multi-view video decoder

3D TV

TV/HDTV

Stereo system

Multi-view

3D TV
A typical MVC coding structure
MVC v.s. SVC

MVC is similar to SVC in many places

• Another extension to H.264/AVC
  – Inherited NAL unit based bitstream structure
    • But the NAL unit header structure is different
  – Inherited the parameter set concept
  – Base view must be H.264/AVC compatible
  – Each view itself may be temporally scalable

• Inter-view prediction is used to improve coding efficiency, similar to SVC inter-layer prediction
Status of MVC Standardization

• Latest Joint Draft (JD) in JVT-Z209, and Joint Multiview Video Model (JMVM) in JVT-Z207, both (will soon be) publicly available from http://ftp3.itu.ch/av-arch/jvt-site/2008_01_Antalya/

• According to the current schedule, the standard will be ratified in 2008
  – Desirable to have a payload format available shortly thereafter
Summary of the draft

• Due to the similarity between MVC and SVC, the MVC RTP draft is also similar to the SVC RTP draft
  – Packetization rules re-used
  – PASCI NAL unit (table of contents of aggregation packet) re-used with changed
  – Session multiplexing process to be re-used
• A new media type is defined
• It seems that the MVC draft does not require new packet formats or other non-signaling mechanisms
• There are open issues in the SVC draft, especially regarding session multiplexing. These issues will be addressed in the same way as for SVC.
Changes to -00

• Aligned to the latest MVC coding draft in JVT-Z209 and the latest SVC payload draft
Question to WG

• Take this work as an WG item?