Evaluating the Use of SIP for Streaming Media Applications

draft-whitehead-mmusic-SIP-for-streaming-media-01

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Draft Status

- **V2: Individual contribution**
- **Informational**
- **Evolved from version 1 based on comments at IETF 66 and discussions with MMUSIC WG participants and chairs**
- **Adds information on solution space and alternative solutions**

Use Cases Summary

- **Use cases can be summarized into any one way video session that needs to become multiway/added to other services or dynamic session control:**
  - Blended services/videoconferencing
  - Video surveillance (with videoconferencing)
  - Sharing a video with another person over a multi-media call
  - Allow access to personal/private video content
  - VOD services that require resource or QOS-guarantees
  - Intelligent selection of media encoding

Why SIP/RTSP

- **SIP**
  - Standardized for conversational services and enhanced services (presence etc.)
  - Widely deployed and implemented
  - Available on a variety of devices (cell phones, settop boxes, video servers etc.)
- **RTSP**
  - Accepted standard for streaming by non IETF SDOs (TISPAN, DVB, ATIS)
  - Supported by commercial IP video deployments
    - **Including large video on demand operations**
  - Available on a variety of devices (cell phones, settop boxes, video servers etc.)
- **No need to reinvent a new protocol or even extend a protocol**
  - Use existing protocols with minimal modifications (if appropriate)
- **Follow RFC1958 recommendations**
  - "If there are several ways of doing the same thing, choose one.
    If a previous design, in the Internet context or elsewhere, has
    successfully solved the same problem, choose the same solution unless
    there is a good technical reason not to."

MOTOROLA

A comment about MRCP (RFC 4463)

- **MRCP's prime focus in in-band control of media**
  - Example: DTMF conference controls
- **MRCP is a very generic mechanism for signaling over the media path and also provides a way of producing functions that can be sent as part of the MRCP message and that the ends can implement**
  - This itself is encapsulated in a session establishment protocol
    - **Examples of RTSP as the controlling session protocol with MRCP embedded inside**
- **Differences/similarities:**
  - Trick plays
    - **Inside the SIP established session RTSP provides established tools to do trick plays, maintaining position in the stream after pausing etc.**
    - **MRCP would entail building whole custom applications to run those and require the development of new applications for vendors who already use RTSP for control of trick plays.**
  - Asynchronous events
    - **MRCP provides mechanisms for asynchronous events**
    - **Inside the SIP session asynchronous events can be sent via SUBSCRIBE/NOTIFY or UPDATE mechanisms**

Next Steps

- **Continue evaluating IETF interest in this topic:**
  - Should the draft become a WG item?
  - Could lead to an Informational RFC.

- **Work in progress on implementations POC**
  - To be shown in November 2006.
  - New draft
    - **Defines SDP and flows for an integrated SIP/RTSP solution (draft-marjou-mmusic-sdp-rtsp-00)**
    - **Could lead to a Standards track RFC.**

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