Evaluating the Use of SIP for Streaming Media Applications

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

Marie-José Montpetit - presenter
Xavier Marjou
Steven Whitehead

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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."

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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-ammusic-sdp-rtsp-00)
    • Could lead to a Standards track RFC.
## Contacts

<table>
<thead>
<tr>
<th>Name</th>
<th>Company</th>
<th>Email</th>
</tr>
</thead>
<tbody>
<tr>
<td>Marie-José Montpetit</td>
<td>Motorola</td>
<td><a href="mailto:mmontpetit@motorola.com">mmontpetit@motorola.com</a></td>
</tr>
<tr>
<td>Xavier Marjou</td>
<td>France Telecom</td>
<td><a href="mailto:xavier.marjou@orange-ft.com">xavier.marjou@orange-ft.com</a></td>
</tr>
<tr>
<td>Steven Whitehead</td>
<td>Verizon</td>
<td><a href="mailto:steven.d.whitehead@verizon.com">steven.d.whitehead@verizon.com</a></td>
</tr>
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