

# **RADPlay: RTP Archiving, Delivery, and Playback extensions for SDP**

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# What is the problem?

- Classic sob story
  - mean old firewall administrators blocking protocol x (where "protocol x" in this particular case is streaming media)
- What has been done to date
  - Proprietary tunneling protocols: mostly effective, but the war continues to escalate
  - Open tunneling protocols: usually turned away by IETF, because they aren't good long term solutions
  - Nothing: actually, this is only what we might wish would happen

# Why change the status quo?

- Lots of time and energy being applied to this problem
- Other standards groups would follow IETF lead if there was a lead to follow
- We can harness a lot of energy toward solving a handful of less controversial problems as a side effect

# What other problems?

- Archiving – it would be nice to standardize an archiving protocol for RTP
- Cache population – it would also be nice to have a server-proxy protocol which reliably transfers live streams in a cache-ready format
- Archive playback – there's not much motivation right now for player vendors to ship playback for archive formats (such as rtpdump)

# RADPlay Extensions to SDP

- **a=srcfile** – URL for source media in on-demand playback
  - Usage: playback of file when engine supports the file format (e.g. .rm, .avi, .mov, .mp4)
- **a=dumpfile** – URL for "dump" of an individual stream
  - Usage: playback when client doesn't have file format, or when source file doesn't exist (live playback)

# RADPlay Extensions to SDP (continued)

- **a=dumpindex** – Simple index to a dumpfile (time, byte-offset pairs)
  - Usage: seeking in the on-demand case, if "Range: npt=" is not available.
- Use of **a=control**: outside of RTSP DESCRIBE response context
  - Usage: allows .sdp to be a metafile for on-demand media

# Example

```
v=0
o=- 2890844526 2890842807 IN IP4 192.16.24.202
s=An on-demand video file
a=control:rtsp://media.example.com/twister.avi
a=srcfile:http://media.example.com/twister.avi
a=srcindex:http://media.example.com/srcindex/twister.avi
m=audio 0 RTP/AVP 0
a=control:rtsp://media.example.com/twister.avi/audio.en
a=dumpfile:http://media.example.com/rtpdump/twister.avi/audio.en
a=dumpindex:http://media.example.com/dumpindex/twister.avi/audio.en
m=video 0 RTP/AVP 31
a=control:rtsp://media.example.com/twister.avi/video
a=dumpfile:http://media.example.com/rtpdump/twister.avi/video
a=dumpindex:http://media.example.com/dumpindex/twister.avi/video
```