Why SDP URLs are a bad idea

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What is the purpose of a URL?

- **A URL is a reference to data on the net.**
- **The actual data can change.**
  - URLs at third party sites referencing the data remain unchanged.
- **A URL references a single medium.**
  - Text, audio, etc.
- **For multiple media there is normally a control medium.**
  - rtsp://foo.domain.org/movie.rtsp

What is the purpose of SDP

Depends slightly on context. In the context of SAP:

- **SDP provides sufficient information to join a multicast multimedia session.**
  - Media types, codecs, protocols.
  - Provides encryption keys.
  - Provides codec intialization information.
  - Provides RTP payload type binding.

SDP is like a URL

- **It provides a reference to a session.**

SDP is not like a URL

- **SDP provides a fanout point to multiple media.**
  - One external reference to SDP
  - SDP provides references to the individual streams.
- **SDP is tightly coupled to the session being described.**
  - It is not a simple reference to the data.
- **Without the correct SDP initialization data, you often can't decode the streams.**
  - Unlike with HTTP, the streams themselves aren't self describing.

SDP is not like a URL

- **If the data changes (change of codec, new medium added, change of codec initialization parameter) you need to also change the SDP.**
  - Thus the SDP should be under the same administrative control as the media streams.
- **URLs appear on third party sites.**
  - Different administrative control from the data.
- **SDP is like MIME in HTTP.**

SDP and the Web.

Recommendation:

- **Put a URL in a web page specifying HTTP or RTSP.**
- **The HTTP or RTSP then returns the SDP.**
  - This provides the important indirection.
- **Then join the streams.**

Data URL type

- **If you really need to embed SDP in a web page, the data URL type is now a IETF Proposed Standard.**
  - Absolutely no need for SDP URL type.

- **But I don’t recommend using it.**