Session Description Protocol

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**Purpose and Content**

- The purpose of SDP is to convey information about media streams in multimedia sessions to help participants join or gather info of a particular session.

- SDP includes:
  - Session name and purpose
  - Time(s) the session is active
  - The media comprising the session
  - Information to receive those media (addresses, ports, formats and so on)

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Format

• SDP is a short structured textual description
• It conveys the name and purpose of the session, the media, protocols, codec formats, timing and transport information
• A tentative participant checks these information and decides whether to join a session and how and when to join a session if it decides to do so
• The format has entries in the form of <type> = <value>, where the <type> defines a unique session parameter, and the <value> provides a specific value for that parameter.

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Session Description Parameters - 1

- **Session description** (* denotes optional *)
  - v= (protocol version)
  - o= (owner/creator and session identifier)
  - s= (session name)
  - i=* (session information)
  - u=* (URI of description)
  - e=* (email address)
  - p=* (phone number)
  - c=* (connection information - not required if included in all media)
  - b=* (bandwidth information)

One or more time descriptions (see next slide)
  - z=* (time zone adjustments)
  - k=* (encryption key)
  - a=* (zero or more session attribute lines)

Zero or more media descriptions (see next slide)
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Session Description Parameters - 2

- **Time description** (* denotes optional *)
  - t= (time the session is active)
  - r=* (zero or more repeat times)

- **Media description** (* denotes optional *)
  - m= (media name and transport address)
  - i=* (media title)
  - c=* (connection information - optional if included at session-level)
  - b=* (bandwidth information)
  - k=* (encryption key)
  - a=* (zero or more media attribute lines)

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An Example

• Below is an example session description, taken from RFC 2327:

v=0
o=mhandley 2890844526 2890842807 IN IP4
   126.16.64.4
s=SDP Seminar
i=A Seminar on the session description protocol
u=http://www.cs.ucl.ac.uk/staff/M.Handley/sdp.03.ps
e=mjh@isi.edu (Mark Handley)
c=IN IP4 224.2.17.12/127
t=2873397496 2873404696
a=recvonly
m=audio 49170 RTP/AVP 0
m=video 51372 RTP/AVP 31
m=application 32416 udp wb
a=orient:portrait

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• This presentation is only a rough introduction. For better understanding go through the document of RFC 2327

• If you have suggestions or have a better presentation to share with others, email to intro_to_multimedia@yahoo.co.in. Your contribution will be appreciated and acknowledged.

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