

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 $\langle type \rangle = \langle value \rangle$, where the $\langle type \rangle$ defines a unique session parameter, and the $\langle value \rangle$ 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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