

SDP: Session Description Protocol
SAP: Session Announcement
Protocol

SDP

- not really a *protocol* – data carried by other protocols
- describes multimedia sessions
- several media streams
- used by SAP, SIP, RTSP, H.332, PINT

SDP information

item	opt.?	description
v		protocol version
o		owner/creator
c	*	connection information
s		session name
b	*	BW available/needed
z	*	time zone adjustment
k	*	encryption key
a	*	session attributes

SDP contact information

item	opt.?	description
i	*	session information
u	*	URI of description
p	*	phone number
e	*	email address

SDP media description

item	opt.?	description
m		media name and transport address
i	*	media title
c	*	connection information
b	*	bandwidth (kb/s)
k	*	encryption key
a	*	media attributes

SDP example

```
v=0
o=g.bell 877283459 877283519 IN IP4 132.151.1.19
s=Come here, Watson!
u=http://www.ietf.org
e=g.bell@bell-telephone.com
c=IN IP4 132.151.1.19
b=CT:64
t=3086272736 0
k=clear:manhole cover
m=audio 3456 RTP/AVP 96
a=rtpmap:96 VDVI/8000/1
m=video 3458 RTP/AVP 31
m=application 32416 udp wb
a=orient:portrait
```

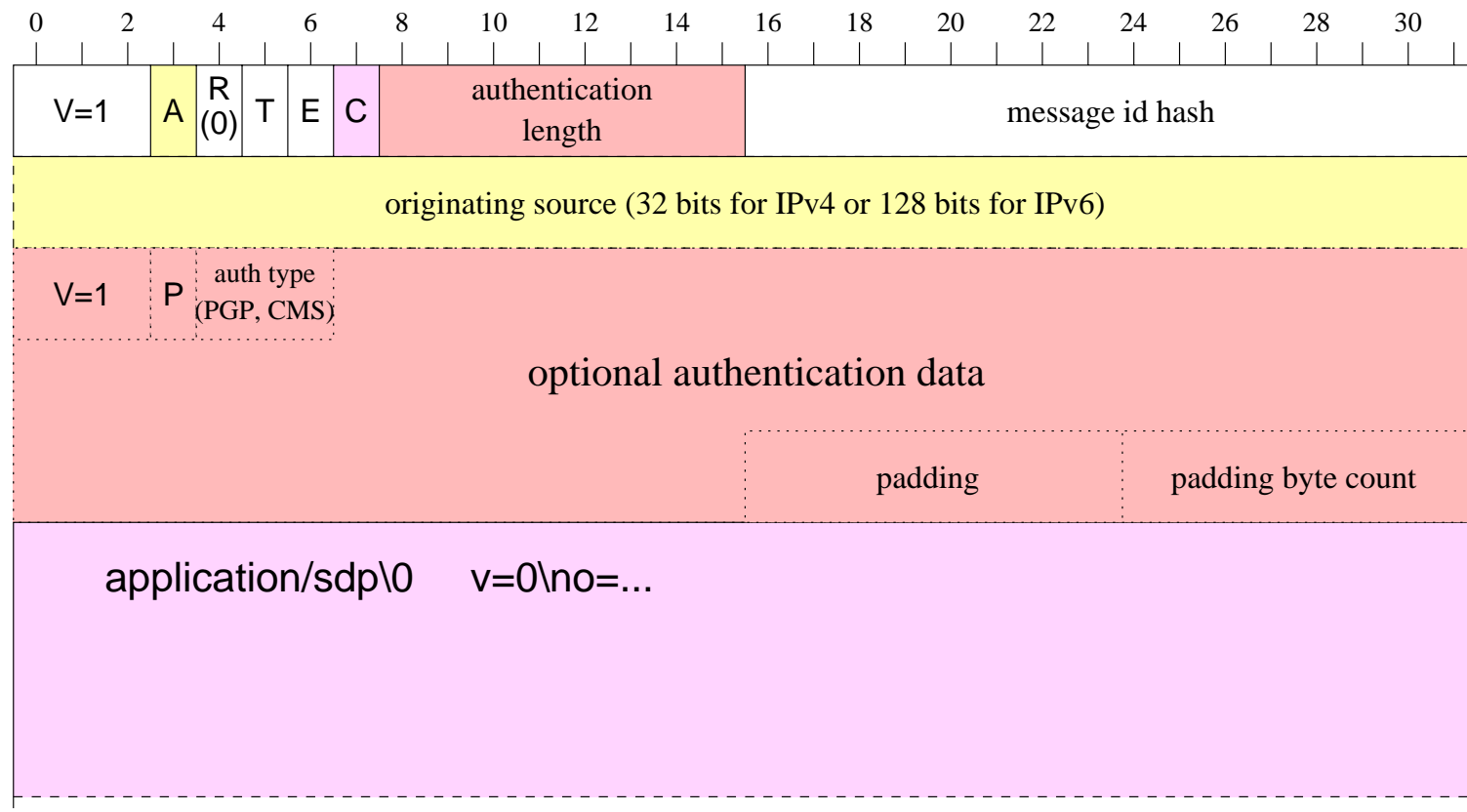
SDP issues

- can't describe alternatives (“English *or* French”)
- can't restrict codecs for bandwidth and CPU restrictions, e.g., only H.261 + μ -law or H.263 + G.729, but in general requires more than codec (bit rate, size, ...)
- can't indicate preferences
- receive capabilities only
- not rich enough for multimedia presentations
- scheduling \neq vcalendar

SAP: Session Announcement Protocol

- advertisement of multicast sessions
- periodically sent to UDP port 9875, group `sap.mcast.net` (224.2.127.254) or administratively scoped
- total SAP bandwidth is 4 kb/s, shared by all announcements
- uses timer reconsideration, just like RTCP

SAP



T: message type (session announcement or deletion)

E: encryption of announcement

C: compression of announcement (zlib)