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Transport Independent SDP Bandwidth Parameter

Draft-westerlund-mmusic-sdp-bwparam-01.txt

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Outline

- The Problem
- A Solution
- The Way Forward
- Open Issues

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The Problem (1 of 2)

- The most commonly used SDP bandwidth modifier is AS:Application specific maximum.
- SDP and “b=“ is used to signal bandwidth in SIP, SAP, and RTSP.
- Usage of NAT-PT (Network Address Translation – Protocol Translation) as an IPv4 to IPv6 transition mechanism does not work for “b=AS”.
- Other mechanisms altering the overhead are also problematic to take into consideration.

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The Problem (2 of 2)

- In some cases it is impossible to know which IP version that is included in AS.
- The packet rate is required for conversions.

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A Solution

- Define a transport independent version of the AS bandwidth modifier (TIAS), i.e. only payload bitrate.
- Define attributes for maximum packet rate (a=maxprate)
- The maximum bandwidth over a link can then be calculated as: BW = TIAS + maxprate*size(IP/UDP/RTP)
- Define default behavior for RTCP that will give all participants equal send rate, although not equal bit rate.

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The Way Forward

- Intended as a simple and quick fix that can be used until SDP-NG becomes available.
- SDP-NG must consider the problems in more detail.
- Is needed for different services that will run over NAT-PTs. For example 3GPP's Packet-based Streaming Service needs accurate bandwidth modifiers for radio resource allocation and to determine if a session can be supported.
- To meet the 3GPP deadlines, an RFC is needed June 2003. Target: WG Last call in January.
- New version before Christmas.

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Open Issues

- May this work become a MMUSIC Work Group Item?
- Is there any need at all for average packet rates?
- Usage of TIAS on session level?
- Is the RTCP solution satisfactory?
- Influence the draft-ietf-avt-rtcp-bw-05.txt?
- Protocol Interactions need review!