Stream Control Transmission Protocol (SCTP) Network Address Translation Support
draft-ietf-.tsvwg-natsupp-22.txt

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SCTP NAT

• A NAT can change the source/destination addresses of a packet, but not the source/destination port numbers.
• Multihoming support requires special handling due to consistent handling of NAT functions on different paths.
• How to handle local port number collisions? For TCP or UDP this is done by changing the port number (NAPT).
SCTP NAT with NAPT Property

• Using the port numbers with the verification tag as a association identifier
  – 46-bit of randomness
  – Requires changes in association lookup in the end-points
Packet Parsing at NAT

• The NAT function needs to parse
  – INIT chunks
  – INIT-ACK chunks
  – ASCONF chunks
• This requires the parsing of up to the first two chunks.
NAT-State control block

- Internal-Vtag
- Internal-Port
- Internal-Address
- Remote-Vtag
- Remote-Port
- Whether the restart procedure is disabled
Relation to
draft-porfiri-.tsvwg-sctp-natsupp

• draft-porfiri-.tsvwg-sctp-natsupp
  – Restart procedure never disabled
  – NAT-State control block contains Remote-Address
  – Requires the end-point to resolve local port number collisions (not possible for 1-to-many style endpoints).

• draft-ietf-.tsvwg-sctp-natsupp
  – Handles local port number collisions
  – More efficient handling of multihoming