

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