SCTP and NAT

Michael Tüxen

tuexen@fh-muenster
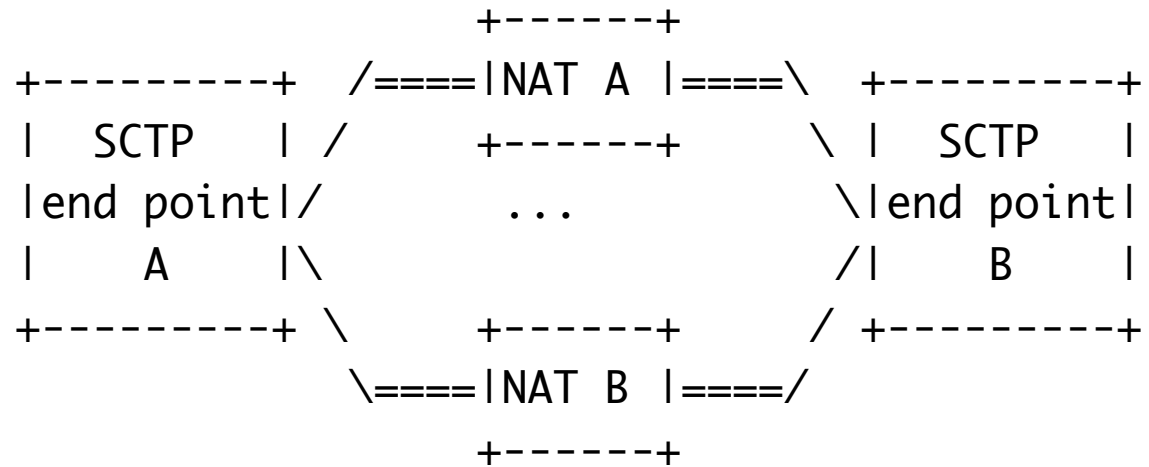
Documents

- draft-xie-behave-sctp-nat-cons-01.txt
- draft-stewart-behave-sctpnat-01.txt
- draft-tuexen-sctp-udp-encaps-00.txt

Single Point Traversal

```
+---------+                                  +---------+
| SCTP    |      +-----+      +-----+         | SCTP    |
|end point|====| NAT |=::==| NAT |====|end point|
|   A     |      +-----+      +-----+         |   B     |
+---------+                                  +---------+
```

Multi Point Traversal

```
                       +------+
+---------+  /====|NAT A |====\  +---------+
|  SCTP   | /     +------+      \ |  SCTP   |
|end point|/         ...         \|end point|
|    A    |\                     /|    B    |
+---------+ \     +------+      / +---------+
             \====|NAT B |====/
                  +------+
```

NAPT versus an SCTP specific NAT

- If NAPT is used, multiple NATs must be synchronized to select the same port number.

- For NAT multiple connections can be distinguished by the verification tag which is included in every SCTP packet.

Support of legacy NATs

- Use UDP encapsulation
- The UDP ports do not have to be synchronized.
- Detection of legacy NATs?