NAT Considerations for IPPM Active Measurement Protocols

draft-muthu-ippm-twamp-nat-00
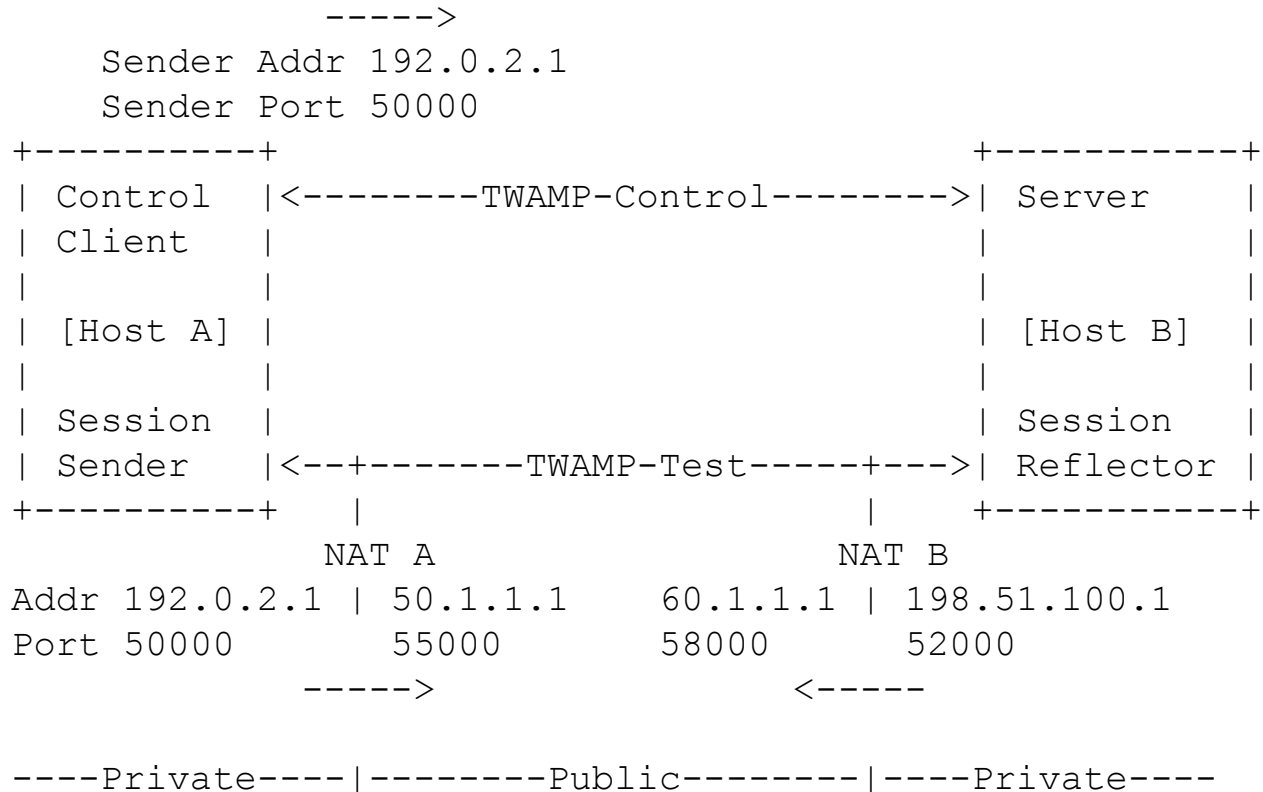
IETF 96

IPPM Meeting

Presenter: Muthu Arul

Authors: Muthu Arul, Greg Mirsky

Problems with NAT (1/2)

- Applications that exchange address/port parameters within control session to establish data session are broken by NAT (e.g. FTP, H.323, SIP, RTSP)

- Common characteristics:
  - Addressing information in control payload is realm-specific and is not valid once packet crosses the originating realm
  - Control session permits data session to originate in a direction that NAT does not permit

- OWAMP/TWAMP negotiate sender and receiver addresses and port numbers used by the test session in their control protocol

Problems with NAT (2/2)

```
                  ----->
        Sender Addr 192.0.2.1
        Sender Port 50000
+---------+                                        +----------+
| Control |<--------TWAMP-Control-------->| Server   |
| Client  |                               |          |
|         |                               |          |
| [Host A]|                               | [Host B] |
|         |                               |          |
| Session |                               | Session  |
| Sender  |<--+-------TWAMP-Test----+--->| Reflector|
+---------+   |                     |     +----------+
           NAT A                 NAT B
Addr 192.0.2.1 | 50.1.1.1     60.1.1.1 | 198.51.100.1
Port 50000        55000         58000        52000
              ----->                   <-----


----Private----|--------Public--------|----Private----
```

TWAMP test session across NAT

Scope of the work

Discussion and documentation of:

- Problems in obtaining IPPM measurements across Internet paths traversing NAT

- Requirements for possible solutions

- Solutions/guidelines/best practices

Next Step

- Reviews/feedback from the WG