DCCP WG,
MPLS, USA
November 2008
IETF-73

Simul Open (-05)

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Completed WGLC

- Tom is document shepherd

- WG Last Call completed for 14 Nov 2008

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Draft -04 (pre WGLC)

- Corrections by Dan Wing:

  - Revised intro

  - Section 2.2.1 moved

  - Section 2.3 updated and added diagram (Figure 3)

  - Text to clarify the retransmission algorithm

- Security considerations changed

Draft -05 (WGLC)

- Revised abstract

- Sections re-ordered to bring the packet type definition to the front, and to correct a section mis-order in draft-04.

- References linked to IETF WGs and updated to satisfy IDNiTs.
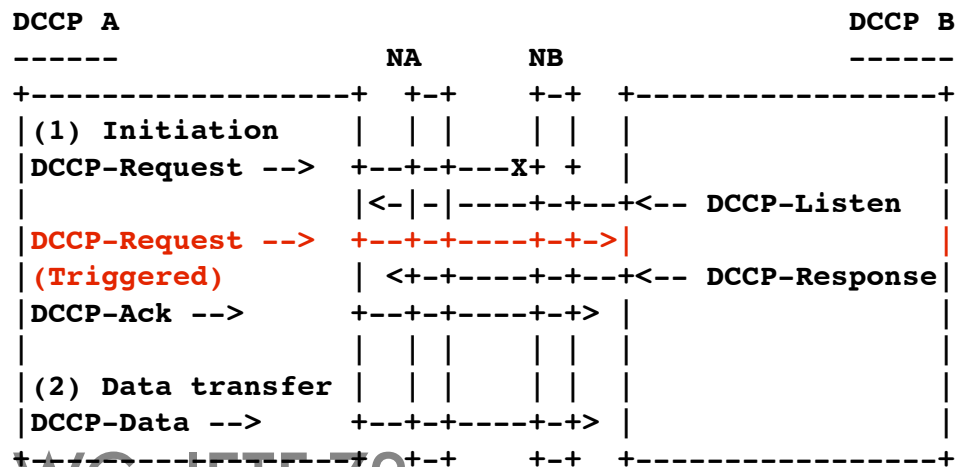
- A number of Typos were fixed.

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Comments during WGLC

Section 2.2.3:

If one makes a comparison here with STUN connectivity checks under ICE we are missing an optimization here. That is the triggered DCCP-Request.
Before the client has received a DCCP-Listen or a regular response it doesn't know that the path is open. Thus if one resent the request upon receiving the Listen one knows that it can get through. A previously sent request may have gotten through, but the client doesn't know that until much later. So the question here is: Is this speedup of the connection worth it? Is it congestion safe enough? I also assume this will not create issues in the DCCP state machine.

The case this optimize is the following which isn't enumerated in the draft:

```
        DCCP A                                   DCCP B
        ------                NA     NB          ------
        +-----------------+  +-+    +-+  +-----------------+
        |(1) Initiation   |  | |    | |  |                 |
        |DCCP-Request -->  +--+-+---X+ + |                 |
        |                    |<-|-|----+-+--+<-- DCCP-Listen |
        |DCCP-Request -->  +--+-+----+-+->|                 |
        |(Triggered)       | <+-+----+-+--+<-- DCCP-Response|
        |DCCP-Ack -->      +--+-+----+-+> |                 |
        |                  | | |    | | |  |                 |
        |(2) Data transfer | | |    | | |  |                 |
        |DCCP-Data -->     +--+-+----+-+> |                 |
        +--+-+----+-+     +-+    +-+  +-----------------+
```

Considering that the initial retransmission timer for DCCP-Request

```
                DCCP A                            DCCP B
                ------    NA        NB            ------
                +----+   +-+       +-+   +-----------------+
                |    |   | |       | |   |                 | State = CLOSED
                | -->+--+-+----+-+--+--> SDP               |
                |    |   | |       | |   |                 | State = INVITED
                |    |   | |       | |   |                 |
                |    |  <-+-+-----+-+--+<-- DCCP-Listen    |   Timer Starts
                |    |   | |       | |   |                 |        |
                |    |   | |       | |   |                 |   1st Timer Expiry
                |    |   | |       | |   |                 |        |
                |    |  <-+-+-----++++--+<-- DCCP-Listen   |   Timer Starts
                |    |   | |       | |   |                 |        |
                |    |   | |       | |   |                 |   2nd Timer Expiry
                |    |   | |       | |   |                 |        |
                |    |  <-+-+-----+-+--+<-- DCCP-Listen    |   Timer Starts
                |    |   | |       | |   |                 |        |
                |    |   | |       | |   |                 |   3rd Timer Expiry
                |    |   | |       | |   |                 |
                |    |   | |       | |   |                 | State = LISTEN
                |    |   | |       | |   |                 |
                ~    ~   ~ ~       ~ ~   ~                 ~
                |    |   | |       | |   |                 |
                | -->+--+-+----+-+--+--> DCCP-Request      |
                |    |   | |       | |   |                 | State = RESPOND
                |    |  <--+--+-+----+-+--+<-- DCCP-Response|
                +----+   +-+      +-+   +-----------------+
```
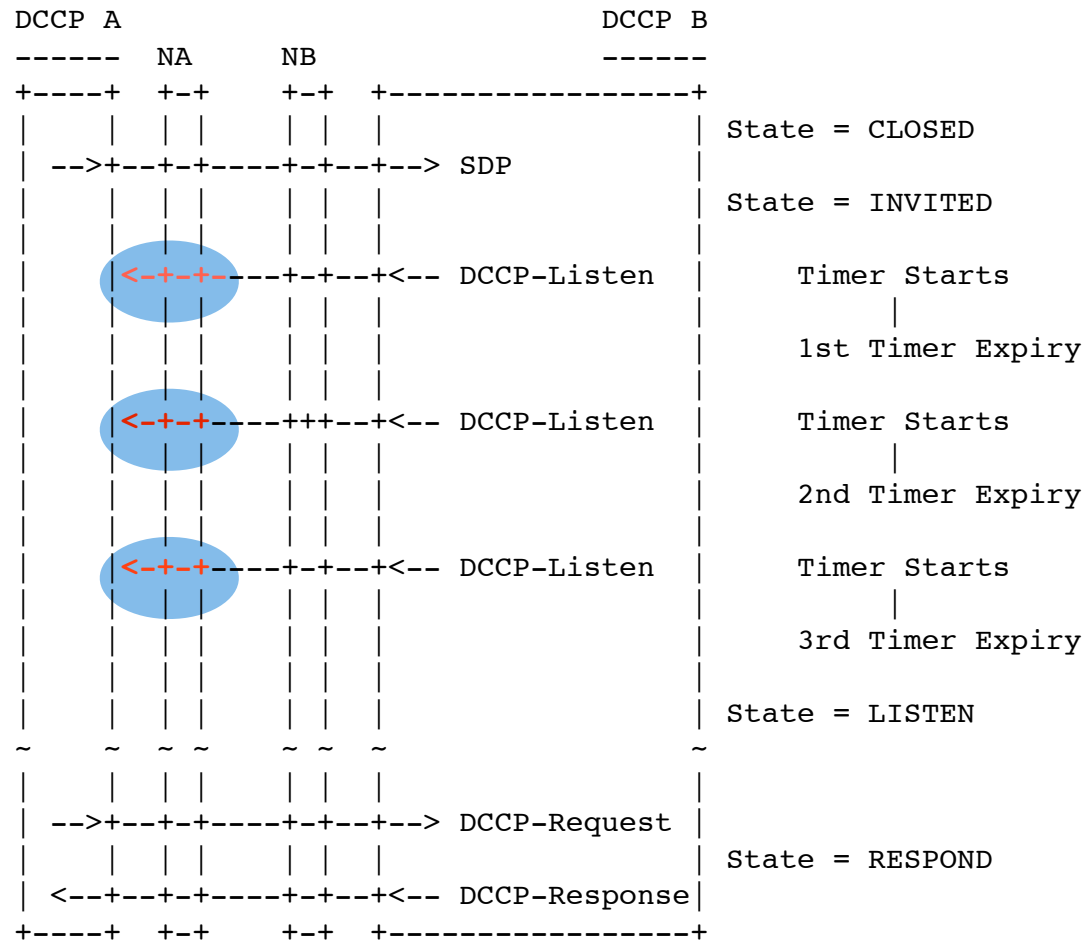
Figure 5:

Comments during WGLC

I think this figure might be a bit confusing or rather unclear on what happens with the DCCP-Listen messages.

For the DCCP-Listen messages to arrive at DCCP-A the NA needs to have a binding (NAT) or opened pinhole (FW) that is a result of traffic from DCCP-A on A's source port.

• If NA is a NAT then some procedure to create that binding and learn the external address and port will have to happened.

• If NA is a Firewall then DCCP-A can still send that SDP to DCCP-B with its source address and port and the traffic will be dropped by NA. Can you please document the assumptions that result in the DCCP-Listen packets to reach the DCCP-A instead of being dropped at NA.

*Yes - although I also **could** modify the diagram so that they are dropped and document this?*

- More comments from this WG are welcome.

- Note also sent to behave WG.