draft-denis-behave-dccp-00
BEHAVE working group meeting

Rémi Denis-Courmont

VideoLAN project, VLC

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\[1\text{with help from Gorry Fairhurst, University of Aberdeen, UK}\]
Outline

1. Problem statement
2. Solution space
3. Way forward
4. Questions
<table>
<thead>
<tr>
<th>Problem statement</th>
<th>Solution space</th>
<th>Way forward</th>
<th>Questions</th>
</tr>
</thead>
</table>

DCCP in five seconds

- connection-oriented protocol with congestion control
- no transport-layer keep-alives
<table>
<thead>
<tr>
<th>Problem statement</th>
<th>Solution space</th>
<th>Way forward</th>
<th>Questions</th>
</tr>
</thead>
</table>

- Basically, how should a *nice* NATs handle DCCP?
- IP addresses and DCCP ports translation
- Bindings allocation and maintenance

Implications on:
- DCCP connection handshake (similar to TCP)
- DCCP checksum
- Layer-4 support required from NATs (contrary to ESP et al).
- No multi-homing and CRC issues (contrary SCTP).
Solution 1: modify the NAT

- recognize IP protocol number for DCCP
- mangle IP and ports very much like BEHAVE-TCP
- leave sequence numbers untouched
- adjust IP and DCCP checksums
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- DCCP state machine needs modification for simultaneous open → draft-fairhurst-dccp-behave-update
- field deployment problematic w.r.t. legacy NATs (understatement)
- possibly useful basis for v6/v4 translation
- needed by draft-ietf-v6ops-cpe-simple-security
Solution 2: tunneling

- append a UDP header between IP and DCCP
- leave NATs unmodified
- need out-of-band negociation
- the usual issues involved with tunneling
- solutions exist already (ESP-in-UDP, Teredo...)

No need to specify anything there, do we?
<table>
<thead>
<tr>
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<th>Solution space</th>
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<th>Questions</th>
</tr>
</thead>
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<tr>
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</tbody>
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DCCP simultaneous open extension → DCCP wg
DCCP service codes - are they relevant here?
In BEHAVE working, do we want this forward?
Also need input from DCCP working group!
That’s all, folks!

Any extra questions?