SOCKS v6 Update
draft-olteanu-intarea-socks-6-11

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New in -11

• Changed intended status: “Experimental” -> “Standards Track”
• Stack options: eliminated silent answers to legitimate requests
• Nit: Renamed “Vendor Specific” options to “Experimental”
  • Don’t want to encourage fragmentation
Stack options w/ silent negative responses

- Negative response same as lack of support
  - Client might want to know
- Options with this problem (-10)
  - Happy Eyeballs
  - IP Fragmentation
  - UDP Error
  - Port Parity

Boolean in nature
Boolean options now have payload

**Old format (-10)**

- Mere presence signals desirability (client) / availability (proxy)

**New format (-11)**

- Can explicitly signal undesirability / unavailability
Port parity options tweaked

<table>
<thead>
<tr>
<th>Kind = 1</th>
<th>Length = 8</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>Level = 5</td>
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- Parity (-10): even, odd
- Parity (-11): none, even, odd

- Requests: UDP ASSOCIATE with port != 0 can reserve port’s counterpart
- Operation Replies: Non-compliance with parity no longer silent
Multipath options tweaked

• Issue: should SOCKS use MPTCP by default?
  • Risky: middleboxes might break MPTCP

• CONNECT: don’t take (small) risks on behalf of the client
  • Little to gain: most servers don’t have MPTCP

• BIND: ultimately up to remote host
  • Can’t prevent remote host from sending SYN + MP_CAPABLE
  • If MP_CAPABLE made it through, MPTCP is likely to work

• In -10: Proxy SHOULD NOT do MPTCP unless explicitly asked
• In -11: Above stipulation only applies to CONNECT.
Intarea WG adoption?

- Adoption call still open
- Please support on mailing list if you’d like to see this adopted