Port Control Protocol

draft-ietf-pcp-base-07

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IETF80
April 1, 2011
Reminder: PCP Scope

- IPv6 simple firewall
- IPv4 simple firewall
- NPTv6 (NAT66)
- Dual-Stack Lite
  - B4 element (client and proxy), AFTR element
- NAT44
  - Home CPE, with publicly-routed IPv4 address
- NAT444
Summary of Changes (1)

- Packet layout changed
- “IE” renamed to “option”
- “PIN” OpCode renamed to “MAP”
- Simpler MAP4 and MAP6 OpCodes
  - Create mapping (to run a server)
- PEER4 and PEER6
  - query lifetime (optimize keepalives)
- IANA gave us port 44323
Summary of Changes (2)

• Separate THIRD_PARTY option
  – For creating mapping on behalf of another host
  – Clarifies intent versus mistake
  – For multiple subscriber addresses (e.g., DS-Lite, non-residential service)
  – Unnecessary with NAT444
Summary of Changes (3)

• Reminder to use same interface for
  – MAP refresh
  – PEER
• PCP server listens on internal interface
• Removed DMZ support (which we revisit today)
Summary of Changes (4)

• PEER queries don’t change NAT behavior
  – That is, active traffic might (not) keep mapping alive

• MAP-created mapping are always deleted when lifetime expires
  – Active traffic won’t keep mapping alive
  – Consensus on March 8 Interim meeting

To discuss
Summary of Changes (5)

• Removed DMZ support (which we revisit today)

• Lifetime in PCP common header
  – For both error responses and success responses
  – Advantage: one place for client to look
Summary of Changes (6)

• Removed UNABLE_TO_DELETE_ALL error code
• Allowed unsolicited options to appear in response
• Created UNPROCESSED option
• Removed nested NAT
  – Will be separate individual document
Summary of Changes (7)

• Removed suggestion to ‘hold’ the same port for the other protocol (UDP / TCP)
  – Nothing needed it

• Rejected EVEN_PLUS_ONE for RTP+RTCP
  – Nobody defended the idea
Issues
Option Order (Tracker #41)

• Proposal: Remove option ordering requirement

• Justification: prevents defining a new option which ‘must appear last’
  – E.g., Signature
DMZ Host (Tracker #44)

• Request: forward all traffic to a host
• Why:
  – tunnel endpoint configuration (IPv4 over IPv6)
  – Firewall, NAT66

• Shall we add support for DMZ host?