

Port Control Protocol

draft-ietf-pcp-base-13

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WGLC Summary

- MAP and PEER remain separate OpCodes
- Report public address without creating mapping
- Client MUST have exclusive use of port before using MAP
- Implicit mapping cannot be shorted
- PREFER_FAILURE implied by PEER
- Clarify: MAP is EIM & EIF, PEER is impl. dep.
- Clarify: Implicit/Explicit/Static

MAP and PEER remain separate OpCodes

- Different semantics
- Some options are implied, others are only valid for certain OpCode
- *s/PEER/MAP, with the remote-ip-address field set to zero/* creates more complexity
- Packet layout will be made similar

Report public address without creating mapping

- Helps UPnP IGD and NAT-PMP interworking
- Would create state in NAT (e.g., address pool)

- Resolution: leave as-is

Client MUST have exclusive use of port before using MAP

- New requirement
- MAP is subset of implicit mapping
 - Per Stuart's slides at IETF80
- Re-enforces existing pseudocode:
 1. client does MAP
 2. establishes outbound connection
- PCP doesn't care how the client meets this requirement

PREFER_FAILURE is implied by PEER

- PEER can create new mapping
 - To restore old TCP connection
- If NAT cannot create mapping, return error
- On error, PCP client will start fresh TCP connection

Clarify: MAP is EIM & EIF, PEER is impl. dep.

- Request: PEER can request EIF or EDF
- Resolution: EIF or EDF should remain implementation dependent
- MAP:
 - endpoint independent mapping
 - Endpoint independent filtering
- PEER:
 - Implementation dependent

Clarify: Implicit/Explicit/Static

- Implicit mapping cannot be shortened by MAP or PEER
- MAP can learn of static mappings (read only)
- PEER can't reduce lifetime of implicit mapping
- Static > MAP > PEER > implicit