Port Control Protocol (PCP) Failure Scenarios

draft-boucadair-pcp-failure

IETF 86-Oralando, March 2013

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Goals

- Understand the reliability of the protocol

- Assess the behavior of involved PCP functional elements during failure events

Scope

- This I-D discusses PCP failure scenarios
  - PCP Client crash
  - Application crash
  - PCP Server failures
    - Discussion on PCP Server redundancy mode: (1) State Redundancy is Enabled, (2) Cold-Standby without State Redundancy and (3) Anycast Redundancy Mode
  - Change of the IP address of the WAN interface of the CPE
    - e.g., how an IPv4 host behind a DS-Lite CPE is aware that a new IPv6 address is used by the B4?
  - Host failure
  - Change of Internal IP address (third party case)
- Some failure mode may lead to stale mappings and therefore consumes the per-use quota
  - Access to the service may be impacted
- A mechanism to synchronize state between the PCP Client and the PCP Server is proposed in the appendix

Next Steps

- Is this work worth to pursue?
- What is the next step for this I-D?
  - Adopt as WG item?