Universal Plug and Play (UPnP) Internet Gateway Device (IGD)-Port Control Protocol (PCP) Interworking Function

draft-ietf-pcp-upnp-igd-interworking

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Proposed changes to handle WGLC Comments

- Add a reference for IGD:1

- Remove "CP Router" from the Terminology Section; only IGD is used in the document

- Remove "non applicable" IGD state variables and methods from the draft

- Description is allowed to be relayed when the PCP Client support such option

- Add a paragraph to Section 5.6 to further explain the role of the IWF in the cascaded NAT scenario

Proposed changes to handle WGLC Comments

- Add a new Section 5.10 to specify the renewal procedure

"Because of the incompatibility of mapping lifetimes between UPnP IGD and PCP, the IGD-PCP Interworking Function MUST simulate long and even infinite lifetimes. Indeed, for requests having a requested PortMappingLeaseDuration longer than 65535 or infinite, the IGD-PCP Interworking Function MUST set the requested PCP Lifetime of the corresponding PCP request to 65535. Furthermore, the IGD-PCP Interworking Function MUST maintain an additional timer set to the initial requested PortMappingLeaseDuration. Upon receipt of a positive answer from the PCP server, the IGD-PCP Interworking Function relays the corresponding UPnP IGD response to the requesting UPnP CP with PortMappingLeaseDuration set to the same value as the one of the initial request. Then, the IGD-PCP Interworking Function MUST renew the instructed PCP mapping until the expiry of PortMappingLeaseDuration. Responses received when renewing the mapping MUST NOT be relayed to the UPnP CP.

In case an error is encountered during mapping renewal, the IGD-PCP Interworking Function has no means to inform the UPnP CP."

Remaining Issues:
Multiple external IP addresses

- The current spec indicates:
  - " Upon receipt of AddPortMapping() from an UPnP Control Point, the IGD- PCP Interworking Function first checks if the requested external port number is not used by another Internal UPnP Control Point. In case a mapping bound to the requested external port number is found in the local mapping table, the IGD-PCP IWF MUST send back

    a ConflictInMappingEntry error to the requesting UPnP Control Point "

- D. Thaler asked to remove this verification phase because multiple IP external addresses may be supported

- If there is no objection from the WG
  - This verification will be removed
  - The text will be updated to indicate the ExternalIPAddress is stored per UPnP CP

Remaining Issues: GetSpecificPortMappingEntry

- The current text specifies GetSpecificPortMappingEntry is relayed into MAP with PREFER_FAILURE Option

- D. Thaler asked to re-consider this behavior

- Analysis:
  - Unlike other Get* methods, some applications use GetSpecificPortMapping to check whether a mapping exists
  - The current specification does not harm those applications
  - We suggest maintaining the text as it is.

Next Step

- An updated version with these changes will be submitted