Transmission of IPv6 Packets over PLC Networks

draft-ietf-6lo-plc-01

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Introduction of the draft

- Objective: To define an <u>IPv6 adaptation layer for constrained PLC</u> networks based on IETF standards.

- Scope: constrained PLCs, including ITU-T G.9903, IEEE 1901.1 and IEEE 1901.2

- Status
  - Started at <u>March 7, 2017</u>, WG adopted at <u>Feb. 1, 2019</u>
  - Version 00: upload as a WG document and editorial modifications based on Carsten's comments
  - Version 01: some modification in the structure and update the Neighbor Discovery section

Modification in the version 01

- Removal of the section 4.7-Extension at the 6lo adaptation layer
  - Unique in the ITU-T G.9903 PLC
  - Inconsistency in the order of the command frame header
    - ITU-T G.9903: the last header
    - RFC8066: before the LoWPAN_IPHC dispatch header
  - Solve the inconsistency in this draft *or* leave the section informational *or* remove the section permanently?

Modification in the version 01

- Refine the Neighbor Discovery section
    - Update "RFC6775-update" into "RFC8505"
    - Address registration in two situations
        - The route-over mode
            - Link-local address SHOULD be only registered at the 6LR
            - Non link-local addresses SHOULD be registered to the registered to the registrar via NS/NA and DAR/DAC (or EDAR/EDAC) messages
            - DAD MUST NOT be utilized if the address is assigned via DHCPv6 or generated via unique link-local address
        - The mesh-under mode
            - Each device is a link-local neighbor at L3 to the 6LBR
            - Registration via NS (ARO/EARO) and NA
            - No DAR/DAC or EDAR/EDAC messages are required

Future work

- We think that the draft has covered the main aspects of the IPv6 adaptation for PLCs. Please help us verify it.

- Your feedback is always appreciated