Transmission of IPv6 packets over ITU-T G.9959 Networks

draft-brandt-6man-lowpanz-02
Draft Status

• Individual draft
  – In a mature state since June
  – Presented to 6MAN which points to 6lo ... ⇒ just waiting for 6lo adoption
  – Draft not renamed from draft-brandt-6man-lowpanz-02 to draft-brandt-6lo-lowpanz-00 (6lo adoption will change the name anyway)
Short overview

• Yet another IP-over-foo in the 6LoWPAN family

• IP packets may be forwarded via mesh routing or via route-over routing. 6LoWPAN is agnostic to the forwarding mode

• ITU-T G.9959 is the PHY & MAC of Z-Wave™ Next revision adds SAR and LLC adaptation layers. Changes already approved in the ITU-T.

draft-brandt-6man-lowpanz-02
Just another 6LoWPAN?

- Reused
  - 98%

- Not reused
  - Mesh routing
  - Fragmentation (already provided by G.9959)

- Changed
  - 8bit NodeID instead of 16bit Short Address
IPv6 over G.9959 – the stack(s)

IPv6 over G.9959 via **mesh routing**

Native application → Application (APP) → Z-Wave, Ping, Web → IP Routing (route-over) → IPv6 → RFC6282 IPHC → IP over G.9959 (LoWPAN) → G.9959 Logical Link Control (LLC), G.9959 Segmentation And Reassembly (SAR), Network (NWK), G.9959 Media Access Control (MAC), G.9959 Physical interface (PHY)

IPv6 over G.9959 via **Route-over routing**

Native application → Application (APP) → (Your app here) → IP Routing (route-over) → IPv6 → RFC6282 6LoWPAN IPv6 Header Compression → IP over G.9959 (LoWPAN) → G.9959 Logical Link Control (LLC), G.9959 Segmentation And Reassembly (SAR), Network (NWK), G.9959 Media Access Control (MAC), G.9959 Physical interface (PHY)
Going forward

• Adoption as WG document?