IPv6 Mesh over Bluetooth(R) Low Energy using IPSP

draft-ietf-6lo-blemesh-05

Carles Gomez, S.M. Darroudi
Universitat Politècnica de Catalunya
Teemu Savolainen
DarkMatter
Michael Spörk
Graz University of Technology

Status

- WGLC on draft-ietf-6lo-blemesh-04
  - Comments received (thanks!)
    - Bilhanan Silverajan
    - Rahul Jadhav
    - Pascal Thubert
- draft-ietf-6lo-blemesh-05
  - Addresses the WGLC comments
- Authors believe that the document is now ready for the next step

Updates in -05 (I/III)

- Terminology
  - "IPv6 mesh over Bluetooth LE links"
    - Consistently throughout the document
- Abstract and Introduction
  - Clarify that the document is not sufficient by itself to enable IPv6 mesh over BLE
    - The document specifies ~~the~~ mechanisms that are needed…
    - The routing protocol is not specified
- Section 2. Bluetooth LE networks and IPSP
  - Bluetooth 4.1 has now been deprecated
  - Bluetooth 4.2 added as a normative reference
    - Bluetooth 4.1 now as an informative reference

Updates in -05 (II/III)

- Section 3.1. Protocol stack
  - Added MTU and fragmentation discussion
    - Bluetooth 4.2: “link layer” MTU is 247 bytes
    - Bluetooth 4.0 and 4.1: “link layer” MTU was 23 bytes
    - L2CAP fragmentation and reassembly used
    - No need to use 6LoWPAN fragmentation functionality
    - IPSP allows negotiating link layer connections with an MTU of 1280 bytes for IPv6

Updates in -05 (III/III)

- Section 3.3. Neighbor Discovery
  - RFC 6775 and RFC 8505
    - EARO (formerly, ARO)
    - ROVR
      - By default, based on the Bluetooth device address
      - Optionally, a crypto ID MAY be used (draft-ietf-6lo-ap-nd)
    - “As per RFC 8505, a 6LN MUST NOT register its link-local address”
- Section 5. Security considerations
  - Address theft and impersonation for Bluetooth device address-based ROVR
  - draft-ietf-6lo-ap-nd protects against such attacks

Questions/Comments ?

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