

Upstream PHY Discovery Preamble for 802.3bn

Leo Montreuil, Broadcom

Supporters

- Duane Remein, Huawei

PHY Discovery Preamble 1 (Initial Ranging)

- DOCSIS 3.1 specification (section 7.4.16.2.6):
 - No sequence specified, only max number of subcarriers and symbols.
 - Preamble is a BPSK sequence configured by CMTS
 - 64 subcarriers max
 - 8 symbol max before duplication
- EPoC 802.3bn should select one PHY Discovery Preamble.

PHY Discovery Preamble 2 (Initial Ranging)

- Propose using an unique PHY Discovery Preamble sequence (section 102.4.1.4):
 - PHY Discovery is 1.6 MHz (32 subcarriers) wide.
 - Preamble is BPSK 32 subcarriers by 4 symbol (before duplication). Sequence length is 128 b.
 - Sequence is PRBS $X^7 + X^1 + 1$
 - Seed is 55 h.
 - Sequence of length 128 is:
1 0 1 0 1 0 1 1 1 1 1 1 1 0 0 0 ..
.....
1 0 1 1 1 0 1 1 1 0 0 1 1 0 0 1

Proposed Motion

- Adopt and incorporate in the draft the PHY Discovery preamble on slide 4 of montreuil_3bn_03a_0514.pdf.

- Moved:

- Seconded: