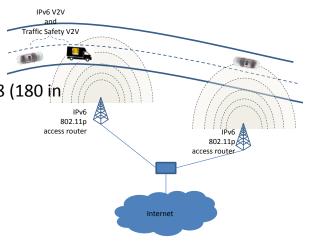
Transmission of IPv6 Packets over IEEE 802.11p Networks

draft-petrescu-ipv6-over-80211p-01.txt

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at IETF 89 in London, United Kingdom,
on March 4th, 2014.

802.11p, and IPv6 over 802.11p

- 802.11p: an ammendment to 802.11 for Wireless Access in Vehicular Environments; if compared to WiFi:
 - Operation Outside the Context of a BSS (OCB)
 - New Timing Advertisement message
 - Frequency range in the 5.9GHz band
 - Approximate prohibition of IPv6 (== 'not safety'!) on channel 178 (180 in Europe)
 - Half-rate encoding
 - High power levels (33 dBm in Europe, 44 dBm in US)
- IPv6 over 802.11p works as over e.g. 802.11b
 - MTU: default 1500 bytes
 - Frame Format: Ethernet Adaptation Layer
 - EtherType: 0x86DD, as with Ethernet
 - Link-local Addresses, as with Ethernet (RFC2464)
 - Address mapping, as with Ethernet
 - Very frequent Router Advertisements may be necessary to ease IP handovers in OCB context, as with Mobile IPv6.



Advancements since IET88 Vancouver

- 6man WG comments:
 - ND 6lowpan RFC6775 adapted for the subnet structure of networks of 802.11p links?
- v6ops WG comments:
 - The IID may be formed just like an IID for Ethernet (instead of 'is') -> next rev.
 - Referring or not to RFC2119, and the use of capitalized modal verbs -> should we capitalize and refer to this RFC, or drop the ref?
 - Use DNA RFC6059 instead of high-rate RAs? Please suggest text.
- 6lo WG comments:
 - RFC6568 6lowpan use-cases mention vehicular -> not clear relationship to 802.11p
- Private IEEE and IETF comments:
 - The use of a restricted reference to a IEEE P1609.2 document for security
 - Should we or should we not drop the P1609.2 reference? Or as informative ref?
- ISO TC204 WG16 comments:
 - Differences in EtherTypes for IPv6/p and for ISO protocols/p.
 - FNTP-to-IP translators would be needed.
 - Minimal MTU recommendation similar to that of short WSMP messages (what is that length?)