

# Unified CPE

(draft-ietf-softwire-unified-cpe-02)

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# Background

- v01 expired a long time ago...
- Operators now have software mechanisms in testing/production
- OpenWRT now implements a 'universal' software client which supports all of the standards track 4in6 software mechanisms
- If an Operator supports and provisions more than one s46 mechanism, what's the operator CPE supposed to do?

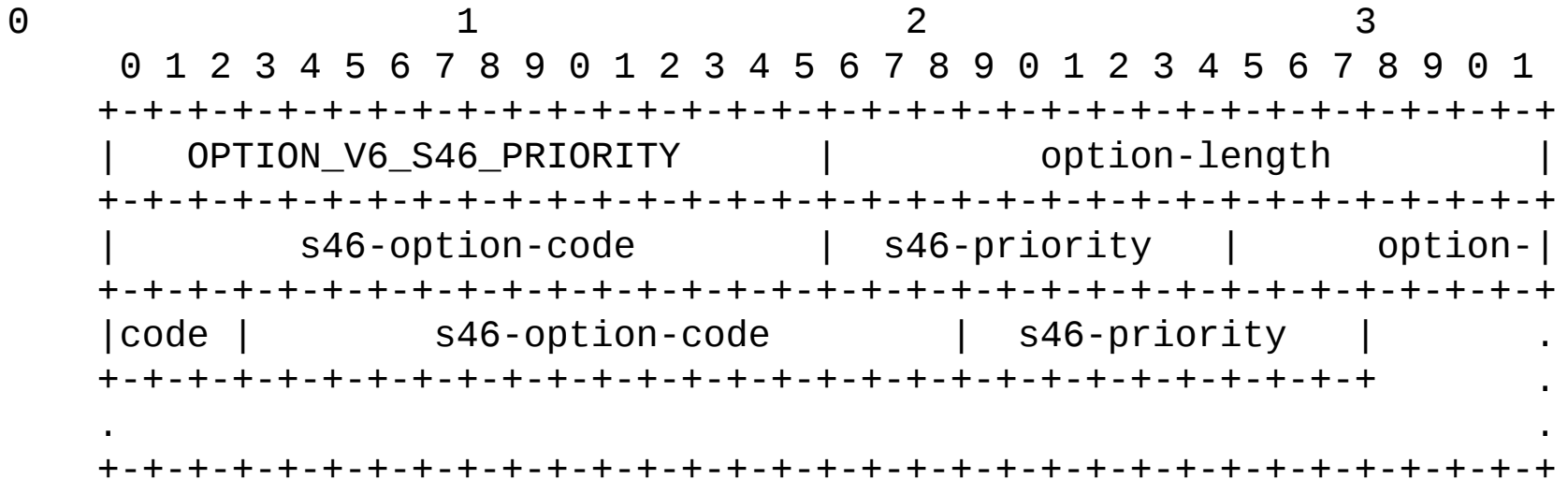
# An Example...

- DS-Lite is quite widely implemented in CPEs (RFC 7084 based CPEs will implement it)
- Operators may favor a 4over6 mechanism which doesn't require CGN (deployment-specific decision) – i.e. lw4o6, MAP-E, MAP-T
- Both DS-Lite and the new mechanism need to be supported and provisioned by the operator, but the preference is for the new mechanism where a CPE can use it
- A CPE which asks for DHCPv6 configuration for multiple s46 mechanisms will get it.

# v02 Update

- Following discussions in Prague, the draft has been almost completely rewritten
- The older draft used patterns of provisioned configuration parameters to identify which s46 mechanism to activate
- With the publishing of RFC7598 (DHCP Options for Softwires) the older method no longer worked
- This version uses a new DHCPv6 option to explicitly prioritize s46 mechanisms

# OPTION\_V6\_S46\_PRIORITY



- Contains a list of S46 mechanism identifiers followed by an 8-bit priority field
- The client selects s46 mechanism with the highest priority (that it has conf. for)

# S46-option-codes

Option Code	S46 Mechanism	Reference
64	DS-Lite	RFC6334
88	DHCPv6 over DHCPv6	RFC7341
94	MAP-E	RFC7598
95	MAP-T	RFC7598
96	Lightweight 4over6	RFC7598

- S46 Mechanism identifier is the DHCPv6 option code used to provision the mechanism

# Multi-Softwires?

- The draft currently allows for two (or more) mechanisms to have the same priority
  - In this case, the client should attempt configuration of all of the s46 mechanisms with the same priority
  - How the client uses these softwires is out of scope
- Is this a useful/desirable function?
  - If not, then the option can be simplified to an ordered list

# Next Steps

- Please review / comment
- Move to WGLC



Thank you!

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