DHCPv6 option for network boot

draft-ietf-dhc-dhcpv6-opt-netboot

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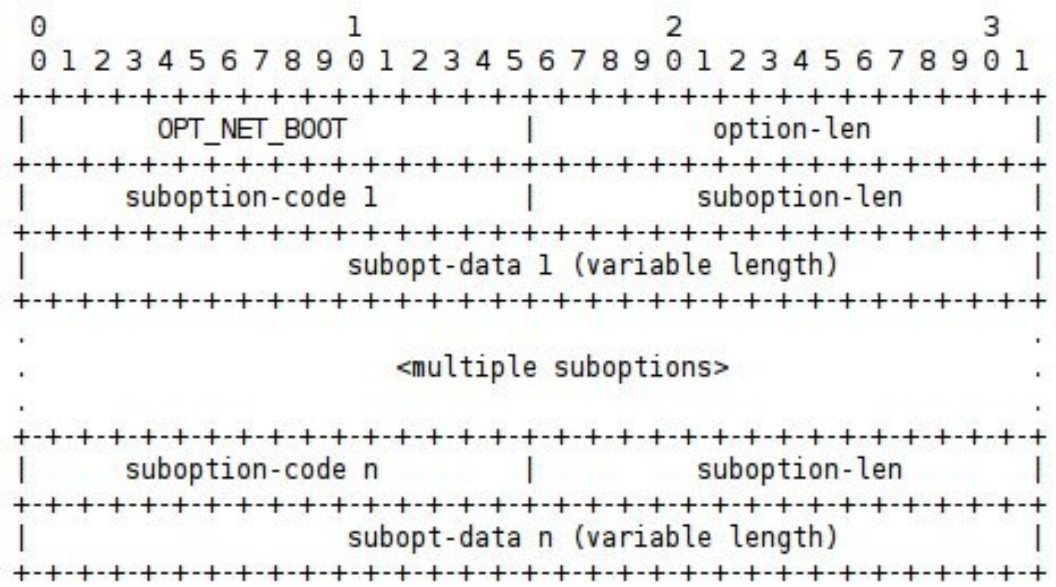
Problem

- Fetch files from a server to boot a client
  - typical file is a kernel
- Information about fileserver (IPv6 TFTP server address, filename etc.) needs to be retrieved via DHCPv6

- There exist similar options for DHCPv4, but not (yet) for DHCPv6

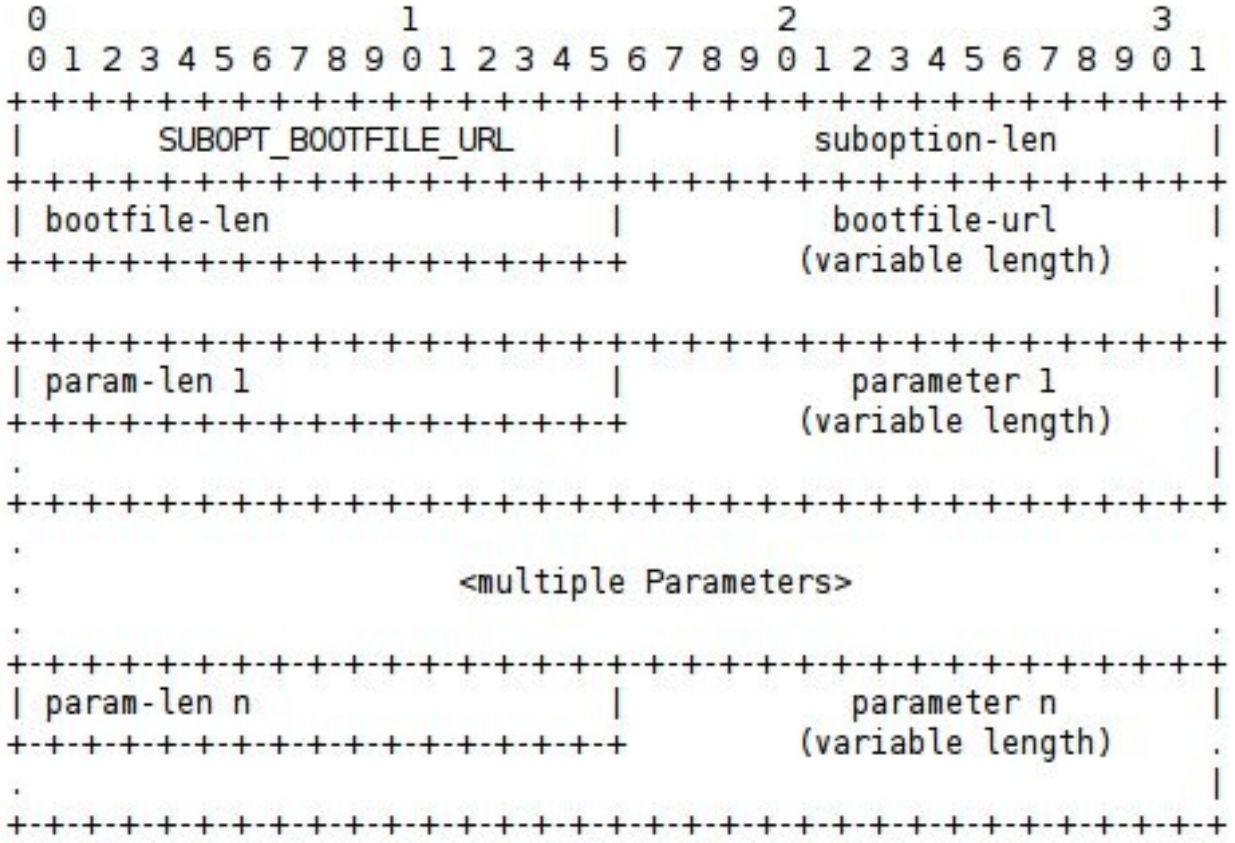
Solution

- Create new DHCPv6 option „OPT_NETBOOT“
- OPT_NETBOOT encapsulates multiple „suboptions“ (-> new IANA registry)
- Suboptios can occur multiple times within OPT_NETBOOT



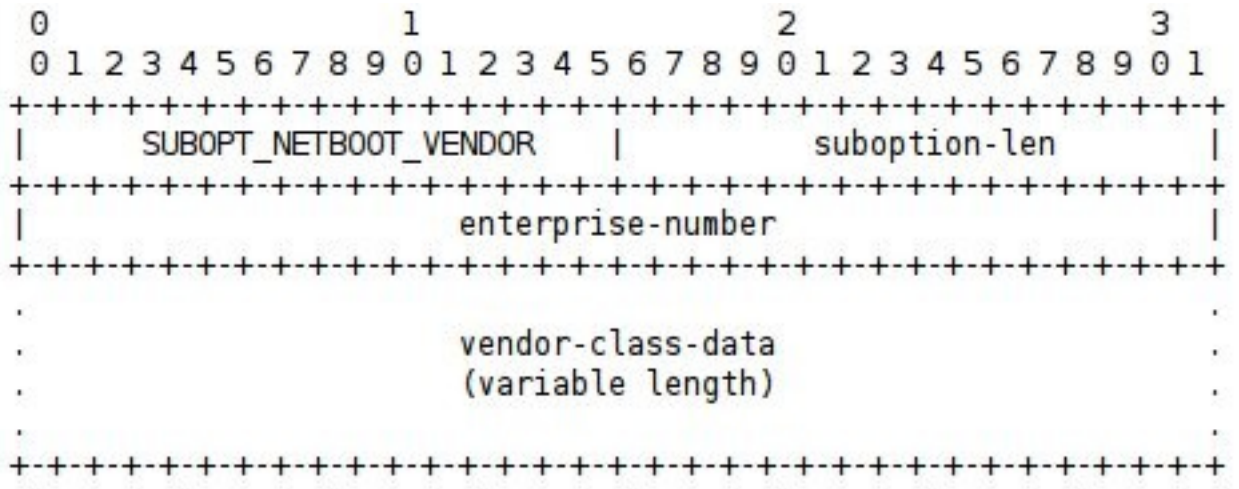
Suboption Boofile URL

- URL to bootfile, e.g. tftp://server/filename&param1=foo
- Parameters could be e.g. kernel parameters needed to boot



Suboption „Vendor class extension“

- Carry vendor-specific information related to network booting
- Vendor class data as described in 22.16 of RFC 3315



Advantages

- Not restricted to TFTP
- Kernel parameters (or any other parameters) can be passed along with the URL to a bootfile
- Suboption concept makes adding new options very easy

By the way...

- There is another draft by V. Zimmer and David Thaler which is mostly along the lines of our draft (draft-zimmer-dhc-dhcpv6-remote-boot-options)
  - Main difference to our draft is iSCSI suboptions

- We suggest to add iSCSI suboptions – as described in draft-zimmer-... - to our draft (i.e. Only if they agree)

Thank you!