DHCPv6 option for network boot

draft-ietf-dhc-dhcpv6-opt-netboot

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dhc WG meeting 74, IETF-74
2009/03/25

Annotation

- Version 3 of *draft-ietf-dhc-dhcpv6-opt-netboot* is the result of merging above mentioned draft and *draft-zimmer-dhc-dhcpv6-remote-boot-options-01*

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

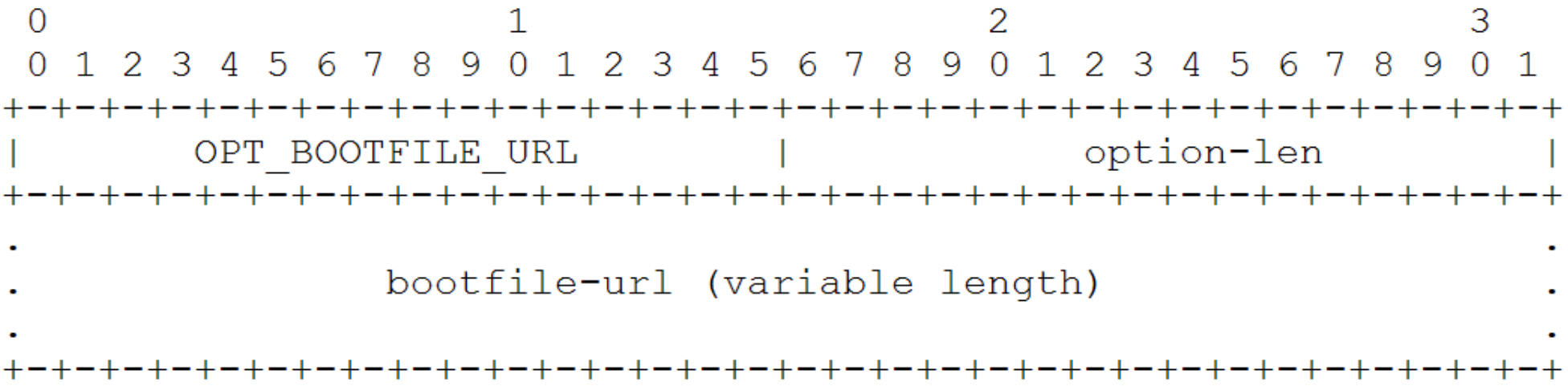
- There exists similar options for DHCPv4, but not (yet) for DHCPv6

Solution

- Add 4 new options
  - OPT_BOOTFILE_URL
  - OPT_BOOTFILE_PARAM
  - OPTION_CLIENT_ARCH_TYPE
  - OPTION_NII

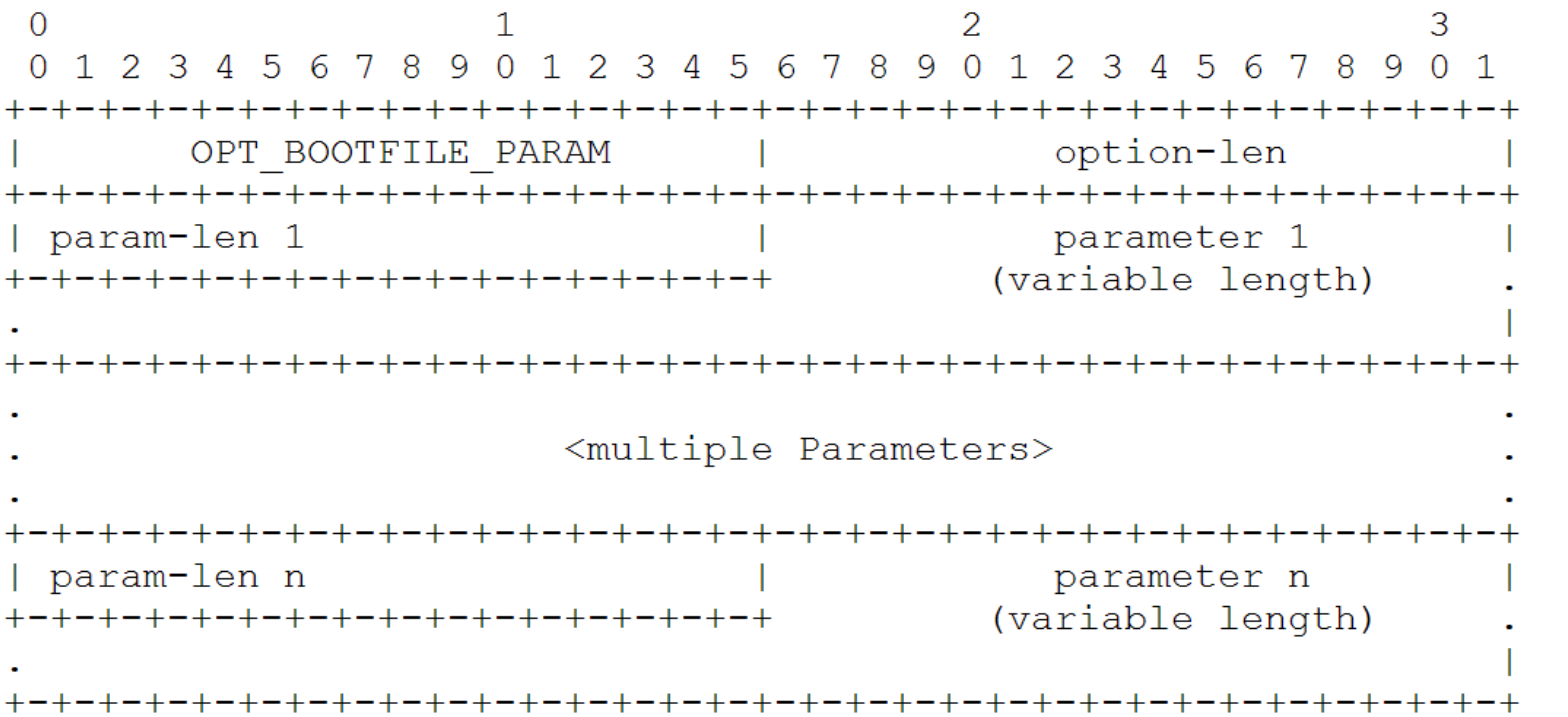
Option Boofile URL

- This option consists of an ASCII string. It is used to convey an URL to a boot file.
- URL to bootfile, e.g. tftp://server/filename&param1=foo



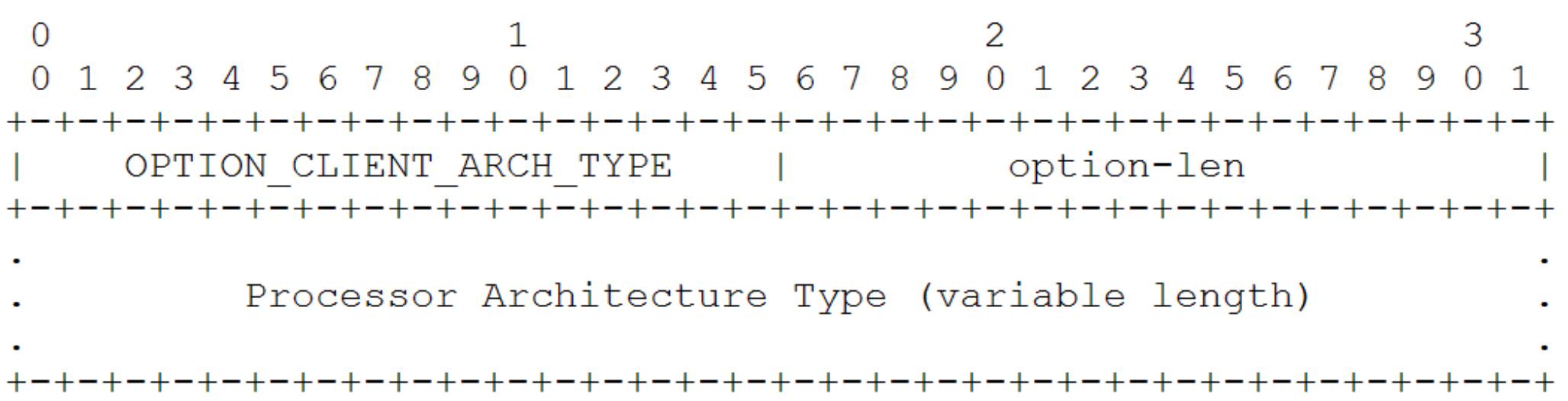
Option „Bootfile parameter“

- This option consists of multiple ASCII strings. They are used to specify parameters for the boot file (e.g. parameters for the kernel or boot loader program)



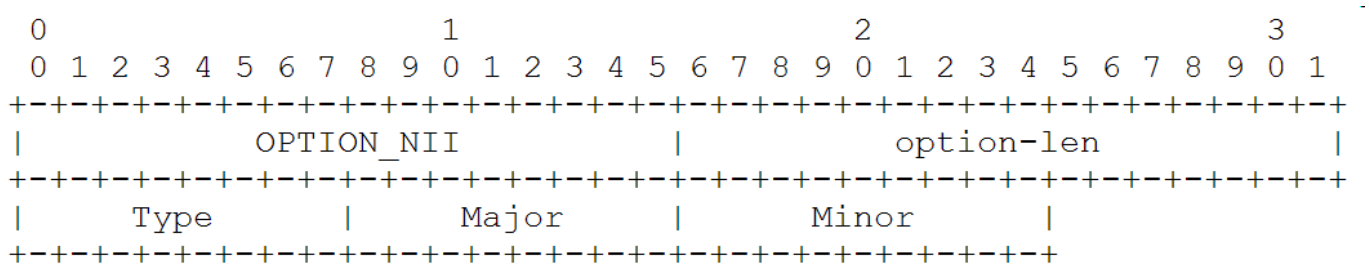
Option „Client System Architecture Type“

- This option provides parity with the Client System Architecture Type Option defined for DHCPv4 in [RFC4578] section 2.1



Option „Client Network Interface Identifier“

- sent by a DHCP client to a DHCP server to provide information about its level of Universal Network Device Interface (UNDI) support (see also [PXE21] and [UEFI22])
- provides parity with DHCPv4



option-code OPTION_NII (TBD4).

option-len 3

Type As specified in [RFC4578] section 2.2.

Major As specified in [RFC4578] section 2.2.

Minor As specified in [RFC4578] section 2.2.

Advantages

- Not restricted to TFTP by use of bootfile URL
- Kernel parameters (or any other parameters) can be passed along with the URL to a bootfile

Thank you!