DHCPv4 and DHCPv6 Options for Access Network Query Protocol Servers

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Why do we need Access Network Query Protocol (ANQP)?

Prior to association, the user/device does not know what he/she can get from what he/she will choose.
IEEE 802.11/WFA’s Solution: Passpoint

• In a scalable deployment environment, the ANQP server should be placed on a centralized device that serves different APs.
• There is a need for the AP to discover the ANQP server
• To make the options scalable for other advertisement servers, e.g., RLQP in 802.11af
DHCPv4 option

Figure 1: ANQP Server Address Option for DHCPv4

- Option Code: OPTION-IPv4_Address-Adv-Server
- Type: the type of advertisement servers, ANQP is just one case.
- Length2 is needed to accommodate different types
DHCPv6 option

- Option Code: OPTION-IPv6_Address-Adv-Server
- Type: the type of advertisement servers, ANQP is just one case.
- Length2 is needed to accommodate different types
Different types of Advertisement Servers

• Define ‘Type’ in order to:
  – make options defined in this document scalable to further extensions; IEEE has defined RLQP and others will be coming
  – avoid the need of an individual option code for each of such advertisement servers

• This document registers the type value for ANQP

<table>
<thead>
<tr>
<th>Type</th>
<th>Value</th>
</tr>
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<tbody>
<tr>
<td>Reserved</td>
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<tr>
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<td>1</td>
</tr>
<tr>
<td>Reserved</td>
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Questions and Comments?

- Thank you for your attention