RFC 3942 Status Update
(Reclassifying DHCP Options)

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IETF-70 DHC WG
Vancouver, December 2007
### Update bootp-dhcp-parameters

<table>
<thead>
<tr>
<th>Line</th>
<th>Description</th>
<th>Reference</th>
</tr>
</thead>
<tbody>
<tr>
<td>128</td>
<td>PXE - undefined (vendor specific)</td>
<td>[RFC4578]</td>
</tr>
<tr>
<td>128</td>
<td>Etherboot signature. 6 bytes: E4:45:74:68:00:00</td>
<td></td>
</tr>
<tr>
<td>128</td>
<td>DOCSIS &quot;full security&quot; server IP address</td>
<td></td>
</tr>
<tr>
<td>128</td>
<td>TFTP Server IP address (for IP Phone software load)</td>
<td></td>
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<tr>
<td>129</td>
<td>PXE - undefined (vendor specific)</td>
<td>[RFC4578]</td>
</tr>
<tr>
<td>129</td>
<td>Etherboot kernel options. Variable length string</td>
<td></td>
</tr>
<tr>
<td>129</td>
<td>Call Server IP address</td>
<td></td>
</tr>
<tr>
<td>130</td>
<td>PXE - undefined (vendor specific)</td>
<td>[RFC4578]</td>
</tr>
<tr>
<td>130</td>
<td>Ethernet interface. Variable length string</td>
<td></td>
</tr>
<tr>
<td>130</td>
<td>Discrimination string (to identify vendor)</td>
<td></td>
</tr>
<tr>
<td>131</td>
<td>PXE - undefined (vendor specific)</td>
<td>[RFC4578]</td>
</tr>
<tr>
<td>131</td>
<td>Remote statistics server IP address</td>
<td>[RFC4578]</td>
</tr>
<tr>
<td>132</td>
<td>PXE - undefined (vendor specific)</td>
<td></td>
</tr>
<tr>
<td>132</td>
<td>IEEE 802.1Q VLAN ID</td>
<td>[RFC4578]</td>
</tr>
<tr>
<td>133</td>
<td>PXE - undefined (vendor specific)</td>
<td>[RFC4578]</td>
</tr>
<tr>
<td>133</td>
<td>IEEE 802.1D/p Layer 2 Priority</td>
<td></td>
</tr>
<tr>
<td>134</td>
<td>PXE - undefined (vendor specific)</td>
<td>[RFC4578]</td>
</tr>
<tr>
<td>134</td>
<td>Diffserv Code Point (DSCP) for VoIP signalling and media streams</td>
<td></td>
</tr>
<tr>
<td>135</td>
<td>PXE - undefined (vendor specific)</td>
<td>[RFC4578]</td>
</tr>
<tr>
<td>135</td>
<td>HTTP Proxy for phone-specific applications</td>
<td></td>
</tr>
</tbody>
</table>

### Actions:
- Red items are dropped (no draft or expired w/conflict)
Update bootp-dhcp-parameters

136  OPTION_PANA_AGENT  [RFC-ietf-dhc-paa-option-05.txt]
137-149 Unassigned  [RFC3942]
150  TFTP server address (Tentatively Assigned - 23 Jun 2005)
150  Etherboot
150  GRUB configuration path name
151-174 Unassigned  [RFC3942]
175  Etherboot (Tentatively Assigned - 23 Jun 2005)
176  IP Telephone (Tentatively Assigned - 23 Jun 2005)
177  Etherboot (Tentatively Assigned - 23 Jun 2005)
177  PacketCable and CableHome (replaced by 122)
178-207 Unassigned  [RFC3942]
208-211 PXELINUX  [RFCXXXX]
212-219 Unassigned
220  Subnet Allocation Option (Tentatively Assigned - 23 Jun 2005)
221  Virtual Subnet Selection Option (Tentatively Assigned - 23 Jun 2005)
222-223 Unassigned  [RFC3942]

Actions:
1. Red items are dropped (no draft or expired w/conflict)
2. Richard Johnson to submit updated DRAFT-RAJ-DHC-TFTP-ADDR-OPTION (150)
3. Richard Johnson to submit updated DRAFT-IETF-DHC-VPN-OPTION (221)
New bootp-dhcp-parameters

128 PXE - undefined (vendor specific) [RFC4578]
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136 OPTION_PANA_AGENT [RFCXXXX]
137-149 Unassigned [RFC3942]
150 TFTP server address (Tentatively Assigned - 23 Jun 2005 - DRAFT-RAJ-DHC-TFTP-ADDR-OPTION-xx.TXT)
151-174 Unassigned [RFC3942]
178-207 Unassigned [RFC3942]
208 pxelinux.magic (string) = F1:00:74:7E (241.0.116.126) [RFCXXXX]
209 pxelinux.configfile (text) [RFCXXXX]
210 pxelinux.pathprefix (text) [RFCXXXX]
211 pxelinux.reboottime (unsigned integer 32 bits) [RFCXXXX]
212-219 Unassigned
221 Virtual Subnet Selection Option (Tentatively Assigned - 23 Jun 2005 - DRAFT-IETF-DHC-VPN-OPTION-xx.TXT)
222-223 Unassigned [RFC3942]
Issues with Etherboot

Email on November 30th to DHC WG Mailing List:
128 Etherboot signature. 6 bytes: E4:45:74:68:00:00
129 Etherboot – passing kernel options
150 Etherboot – encapsulate options for Etherboot bootloader
175 Etherboot
177 Etherboot (usage less clear)

Claim “wide” usage of 128 and 150.
Next Steps - Etherboot

• It is deployed, though not clear how widely
• Conflicts on option 128, 129, and 150 (pending)
• Possible Actions:
  1. Per RFC 3942, say sorry, give them up and require assignments via IETF process
  2. Allow their “claim”
     • 175 and 177 are OK
     • 128, 129, and 150 will conflict with other uses
  3. My suggestion (some of both)
     • Document historical usage of 128, 129, 150 and assign 175 and 177 (as no conflict)
     • Require assignment via IETF process for 128, 129, and 150 replacements
Next Steps

• How do we get IANA to remove stale tentatively assigned reservations?
  – Publish as WG I-D and go for RFC?
  – Publish revised ID and get WG and AD approval?
  – Full RFC?
RFC 3942 Procedure

1. The reclassified options (128 to 223) will be placed in the "Unavailable" state by IANA. These options are not yet available for assignment to publicly defined options.

2. Vendors that currently use one or more of the reclassified options have 6 months following this RFC's publication date to notify the DHCP WG and IANA that they are using particular options numbers and agree to document that usage in an RFC. IANA will move these options from the "Unavailable" to "Tentatively Assigned" state.

   Vendors have 18 months from this RFC's publication date to start the documentation process by submitting an Internet-Draft.

   NOTE: If multiple vendors of an option number come forward and can demonstrate that their usage is in reasonably wide use, none of the vendors will be allowed to keep the current option number, and they MUST go through the normal process of getting a publicly assigned option [RFC2939].

3. Any options still classified as "Unavailable" 6 months after the RFC publication date will be moved to the "Unassigned" state by IANA. These options may then be assigned to any new publicly defined options in accordance with [RFC2939].

4. For those options in the "Tentatively Assigned" state, vendors have 18 months following this RFC's publication date to submit an Internet-Draft documenting the option. The documented usage MUST be consistent with the existing usage. When the option usage is published as an RFC, IANA will move the option to the "Assigned" state.

   If no Internet-Draft is published within the 18 months or should one of these Internet-Drafts expire after the 18 months, IANA will move the option to the "Unassigned" state, and the option may then be assigned to any new publicly defined options in accordance with [RFC2939].

Publication Date November 2004
+6 months Date May 2005
+18 months Date May 2006