Support for multiple provisioning domains in IPv6 Neighbor Discovery Protocol

draft-ietf-mif-mpvd-ndp-support-03
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Outline

• Changes from -02 to -03
• Size considerations
• Discussion
Changes from -02 to -03

• Addressed the comments:
  – No separate PDV-ID option; everything now in one ND option.
  – Solicitation for PVD removed and the PVD_CO option is now only allowed in RAs.
  – Length of the hash and signature added -> if the ‘name type’ is not known skipping the hash and signature is possible.
  – No ‘S’ flag to indicate presence of signature.. the ‘Sec Length’ does the same.
  – No fancy alignments within the option..
Size considerations

• Yes.. signatures will grow the RA size.
  – However, no certs are transported in RAs.
• Yes.. possible ND option duplication for options encapsulated inside the PVD_CO for explicit PVD and those meant for implicit PVD.
  – Be conservative what to advertise in RAs.
The PVD_CO option

• It is a container that embeds existing and future NDP options.
• PVD unaware implementations skip everything (the ‘length’ is tuned accordingly).

```
<table>
<thead>
<tr>
<th>Type=PVD_CO</th>
<th>Length</th>
<th>Name Type</th>
<th>r</th>
<th>Sec</th>
</tr>
</thead>
<tbody>
<tr>
<td>Length</td>
<td>ID Length</td>
<td>Key Hash (optional)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Digital Signature (optional)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PVD Identity</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Possible zero padding to ensure 8 octets alignment</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Zero or more &quot;encapsulated&quot; NDP options</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
```
Discussion

• At minimum the PVD_CO option can just be used to _only_ carry the PVD Identifier:
  – The identifier belongs to other draft and can be ‘whatever’..
  – Still allows embedding other NDP options is needed for some use case.. with authentication.

• Something more or less needed?