draft-kk-mpvd-ndp-support-00

MIF WG – IETF88
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Background

• A protocol solution proposal for draft-anipko-mif-mpvd-arch-05 using IPv6 NDP.
• Complimentary work to draft-kkb-mpvd-dhcp-support-00
Design choices in -00

• A generic PVD container NDP option:
  – Carries PVD specific options e.g. PVD Identifier
  – Can carry existing NDP options

• An RA/RS may contain zero or more PVD containers:
  – Multiple PVDs may be in one RA/RS..
  – An RS may contain zero or more PVD containers to solicit information from a specific PVD:

• Reuse existing security mechanisms: RFC6494/6495/3971

• Defines the security principles:
  – PVD container content may be signed to prove the authenticity of the advertised information and to provide integrity protection
  – Replay protection left for the “carrier protocol” to solve
**PVD Container Option**

<table>
<thead>
<tr>
<th>Type</th>
<th>Length</th>
<th>Options Count</th>
<th>Name Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>PVD_CO</td>
<td></td>
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Suboptions (padded to 8 octet boundary)

Key Hash

Digital Signature

Padding (zeroes)

- Discussion already to move key hash + signature into an option.. We should have actually reused RFC3971 RSA signature option already.. ;-)
PVD Identifier Option

- Currently supported identifier types:
  - UUID [RFC4122]
  - UTF-8 string
  - OID [OID]
  - NAI Realm [RFC4282]
Points to think more..

• Alignment and padding differences:
  – NDP options have 8 octet alignment requirement whereas DHCP does single octets -> NDP solution stuck with extra length fields and padding...?

• Replay protection as part of the PVD container or left for the “carrier protocol” to deal with?

• Multiple PVD Identifiers within one PVD Container? Current thinking is to have only one.
Next steps

• There are obvious issues to fix..

• Text for end host & router procedures in their own sections..

• More alignment with DHCP counterpart..

• And then.. Where and when to take this work?
Questions?

Jouni will pay attention just like in v6ops session...