draft-kk-mpvd-ndp-support-00

MIF WG – IETF88

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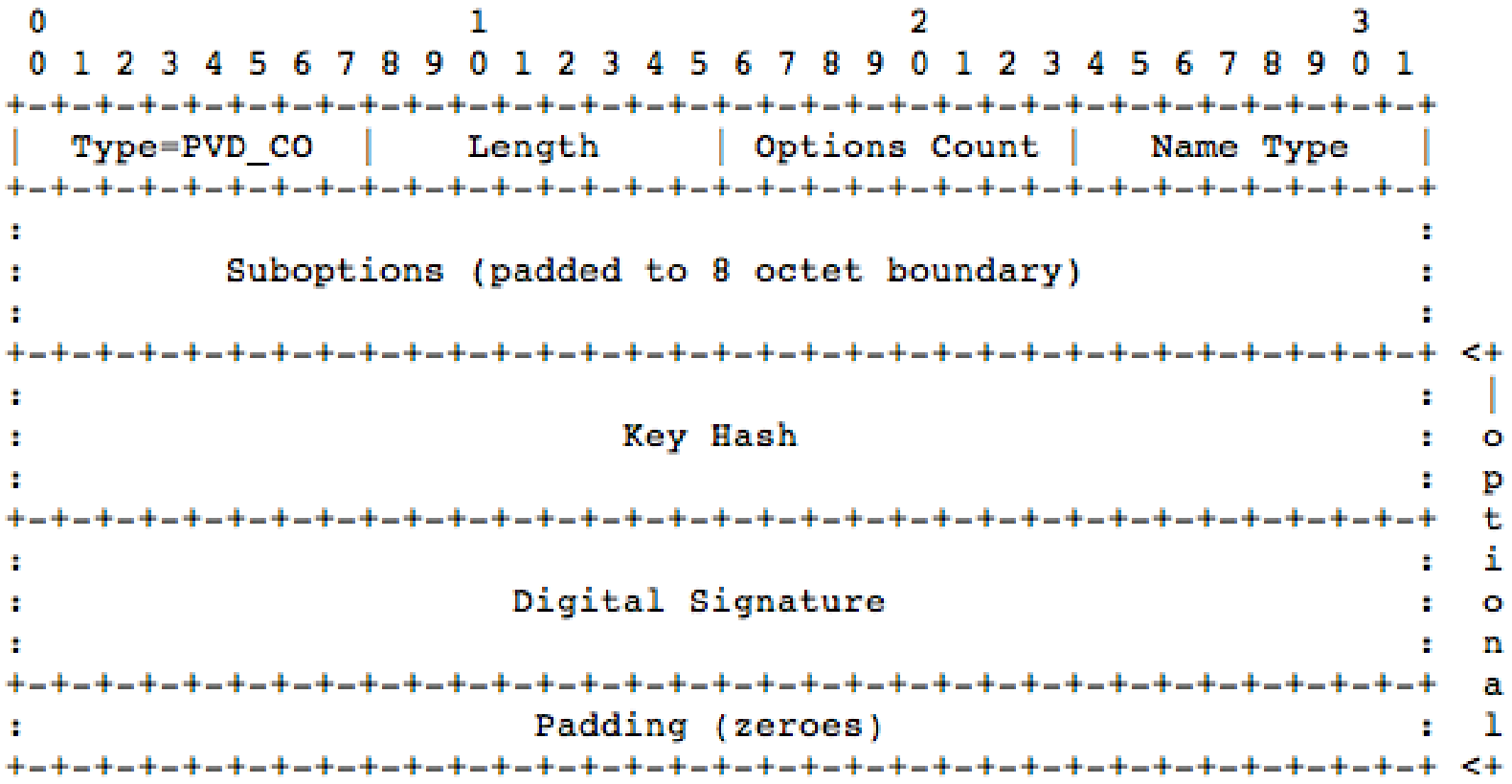
Background

- 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

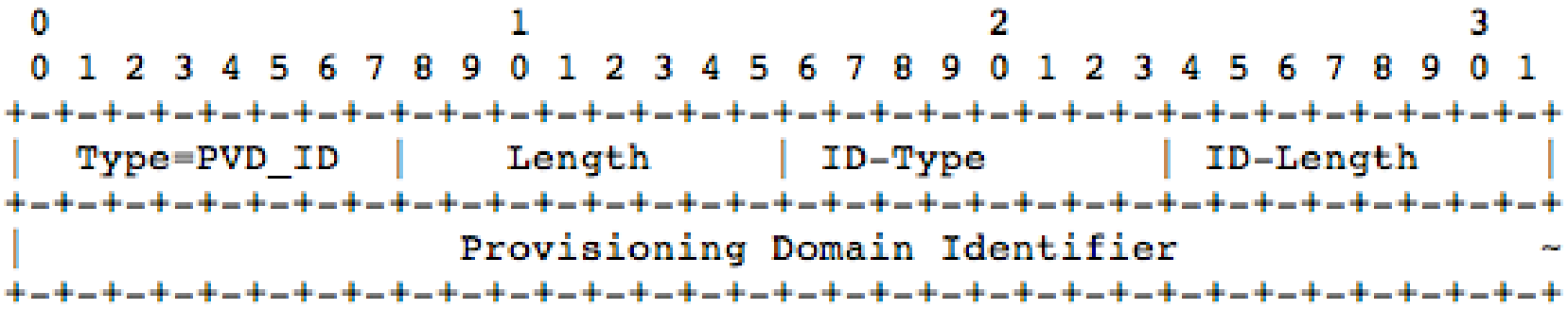
- A generic PVD container NDP option:
  - Carries PVD specific options e.g. PVD Identifier
  - Can carry existing NDP options
- An RA/RS may contain zero or more PVD containers:
  - Multiple PVDs may be in one RA/RS..
  - An RS may contain zero or more PVD containers to solicit information from a specific 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



- 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]

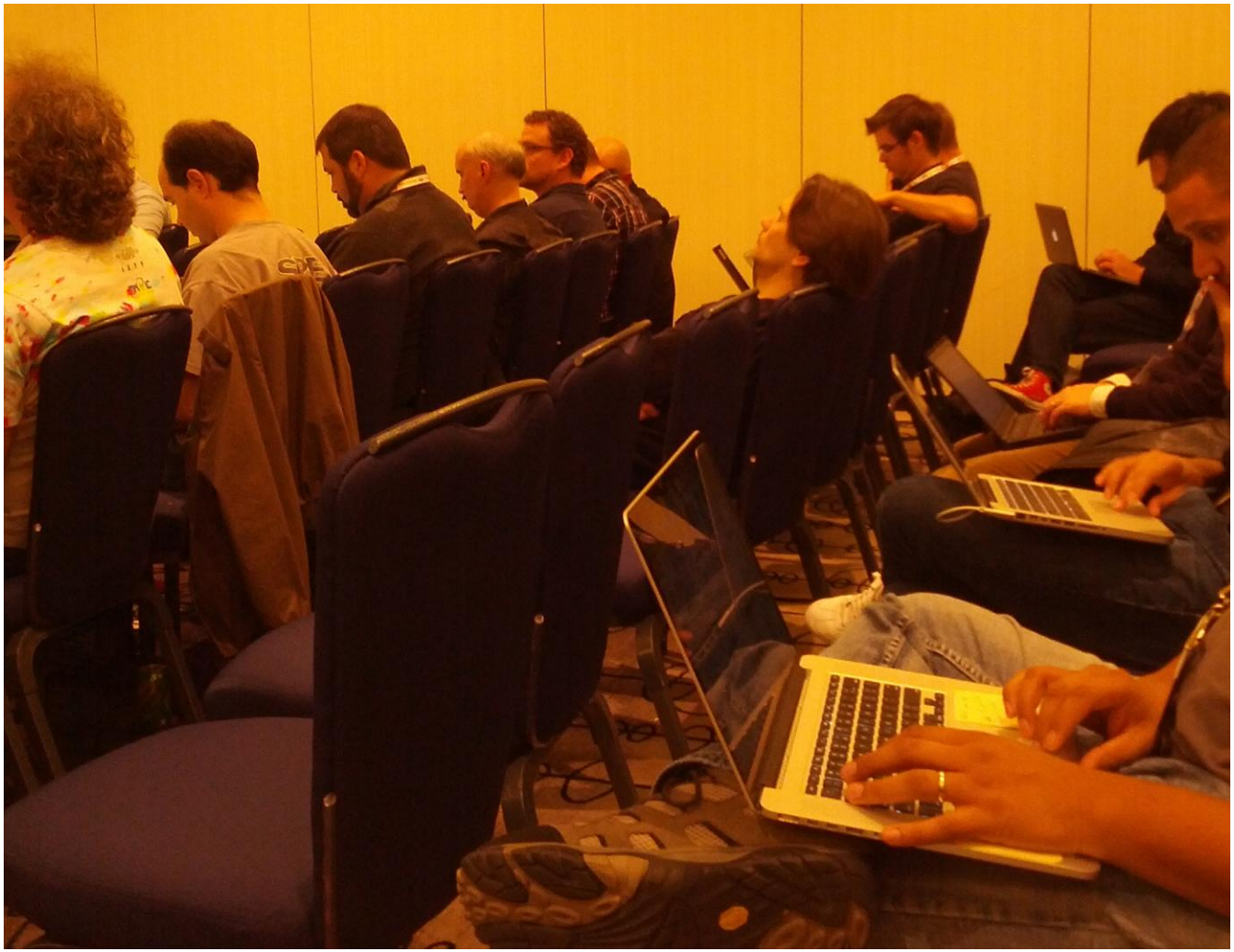
Points to think more..

- 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…