Deprecated Network Prefix Provision

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Motivation (1/2)

- NDP does not specify how an AR obtains the deprecated network prefix information from an MN
  - MN may use its deprecated address (i.e., previously configured address at the previous network) for communications at the new network of the AR
    - MN uses the deprecated address only for keeping communications already established at the previous network
    - MN uses the preferred address for new communications
Motivation (2/2)

• Without knowing the deprecated network prefix
  • Ingress filtering may filter all packets with the deprecated address of the MN
  • AR may cannot establish a bidirectional tunnel with the previous AR for the packets with the deprecated address

• If the deprecated network prefix is known to the AR
  • Ingress filtering rule can be updated
  • Bidirectional tunnel can be established
Proposal

• New extensions to RS and RA messages
  • RS message
    • Extended to include the deprecated network prefix option
  • RA message
    • Extended to quickly receive the RS message including the deprecated network prefix option

‘DNP option’ contains
1) *MN’s deprecated network prefix(es)*,
2) etc
Next Steps

• Specify the flag and DNP option formats
• Specify the security consideration
Thanks!

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Backup: Address States

- **Autoconfigured address states**


  - **Valid**: The address can send and receive unicast traffic. This state covers both the preferred and deprecated states.
  - **Preferred**: The address has been verified as unique. A node can send and receive unicast traffic to and from a preferred address.
  - ** Deprecated**: The address is still valid, but using it for new communication is discouraged. Existing communication sessions can continue to use a deprecated address. A node can send and receive unicast traffic to and from a deprecated address.