CER ID Option

draft-donley-dhc-cer-id-option-01

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Purpose of this draft

• Several home network addressing mechanisms require identification of Customer Edge Router (CER)

• One such mechanism is Home Network Autoconfiguration via DHCPv6 Relay
DHCPv6 Relay Prefix Delegation

I need a /64

I need a /64

I need a /64

I need a /64

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I need a /64

I need a /64

I need a /64

- CER

- IR
Example: DHCPv6 Relay

- CER determines that it is the CER
- IRs determine that they are IRs
- IRs respond to IA_NA requests directly but relay all IA_PD requests “up” towards root of tree
- CER responds to all IA_PD requests
- Routing can be handled by snooping relayed DHCP messages to install routes
CER ID via DHCPv6 Option

• CER could be identified via a DHCP option
• ISP indicates that it isn’t the CER
  – By setting the CER ID option to ::
  – By not returning the CER ID option
• CER identifies itself as CER and populates the CER ID option with its IPv6 address
• Internal Routers (IRs) learn the CER ID option and pass it to other
CER ID Option

```
0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6 7 8 9 0 1
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|       option-code              |       option-len              |
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|
|                       CER_ID                   |
|                                             |
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option-code  OPTION_CER_ID (TBD).
option-len  16
CER_ID value  IPv6 address of CER
Applicability

• Developed along with http://tools.ietf.org/html/draft-gmann-homenet-relay-autoconf-01
• Also could be used for other addressing mechanisms that require CER identification
• Could be extended to include other information (e.g. size of prefix delegated by the ISP) for distribution in the home
Next Steps

• Looking for WG feedback
  – Should this option be extended?
  – Should this draft become a WG document?