Usage of Host Generating Interface Identifier in DHCPv6

draft-xia-dhc-host-gen-id-02

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Configuring CGA using DHCPv6

draft-jiang-dhc-cga-config-02

- The configuration of IPv6 address of a host includes two parts: a prefix and an interface ID
- The interface Identifier is generated by the host itself
- SLAAC uses RA (ND) to assign the prefix
- ?? (what if) The prefix is managed by a DHCP server
- No existing DHCP procedure is suitable for this scenario
- DHCPv6 (RFC3315), Stateful Address Configuration, assumes that a DHCP server is responsible for the assignment of an *integral* address which includes prefix and interface identifier parts.
- draft-ietf-csi-dhcpv6-cga-ps describes problem regarding DHCPv6 and CGA Interaction
Solution – Separation of prefix assignment and interface ID generation

Prefix assignment

Interface ID generation

+-------------------+    +-------------------+
| Host (Client) |    | DHCP Server |
+-------------------+    +-------------------+

1 Solicit

2 Advertise

3 Combination of Prefix and Interface Identifier

4 Request

5 Reply

Note: Step 4 & Step 5 is consistent with generic address registration
New Identity Association for Prefix Assignment Option (IA_PA)

In order to enable Step 2, assign prefix through DHCPv6
• Questions, clarifications?

• Adopted as WG document