



Managing the Use of Privacy Extensions for SLAAC in IPv6

(draft-gont-6man-managing-privacy-
extensions-01.txt)

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80th IETF meeting, Prague, Czech Republic

March 27-April 1, 2011



Problem statement

- **There are different policies for generating Interface IDs**
 - Modified EUI-64 Format
 - Privacy Extensions (RFC4941 & Microsoft's variant)
- **Different systems have different defaults**
- **It's currently impossible to convey information about the desired policy during SLAAC.**
- **Consequence: If a specific policy is desired, the admin needs to resort to manual configuration of each system – painful!**



Goal

- **Allow administrators to convey policy information regarding how Interface IDs should be generated, such that**
 - Policy for Interface I-Ds is homogeneous for a given prefix
 - No manual configuration is needed
- **Have this information be advisory (SHOULD rather than MUST)**
 - Hosts can always generate their Interface IDs as they please
 - if they have reasons to do so
- **Obvious mechanism for conveying this information: Prefix Information Option in Router Advertisements**

Updated Prefix Information Option

```

+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
|      Type      |      Length      | Prefix Length | L | A | R | SAG | Rsvd1 |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
|                                     Valid Lifetime                                     |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
|                                     Preferred Lifetime                                     |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
|                                     Reserved2                                     |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+                                     Prefix                                     +
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+

```

SA G	Semantics
00	No advice on IID generation
01	Use Modified EUI-64 Format (RFC 4291)
10	Use Privacy Extensions (RFC 4941)
11	Unused (reserved for future use)



Upcoming changes (version -02)

- **Title changed to “Managing the Address Generation Policy Employed for Stateless Address Autoconfiguration in IPv6”**
- **Clarified that each policy is mutually exclusive: generate only one address, using the selected policy**
- **Added a “Privacy Considerations” section**
- **Specified defaults (with normative language)**
- **Specified a variable for router implementations:**
 - **DesiredAddressPolicy (defaults to “Default”)**
- **Specified variables for host implementations:**
 - **AddressPolicyConfiguration (defaults to “Enabled”)**
 - **DefaultAddressPolicy (defaults to “PrivacyExtensions”)**
- **Result: Privacy Addresses are used by default, but the router can advise hosts to use a different policy**



Moving forward

- **A heads-up of our working copy has been posted on the mailing-list, and we'll formally rev the document this week**
- **Feedback will be highly appreciated -- particularly if you have suggested improvements before (have your comments been addressed in the upcoming rev?)**