Managing the Use of Privacy Extensions for SLAAC in IPv6
(draft-gont-6man-managing-privacy-extensions-01.txt)

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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

<table>
<thead>
<tr>
<th>Type</th>
<th>Length</th>
<th>Prefix Length</th>
<th>L</th>
<th>A</th>
<th>R</th>
<th>SAG</th>
<th>Rsvd1</th>
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- Valid Lifetime
- Preferred Lifetime
- Reserved2
- Prefix

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<thead>
<tr>
<th>SAG</th>
<th>Semantics</th>
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<tbody>
<tr>
<td>00</td>
<td>No advice on IID generation</td>
</tr>
<tr>
<td>01</td>
<td>Use Modified EUI-64 Format (RFC 4291)</td>
</tr>
<tr>
<td>10</td>
<td>Use Privacy Extensions (RFC 4941)</td>
</tr>
<tr>
<td>11</td>
<td>Unused (reserved for future use)</td>
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</tbody>
</table>
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?)