IPv6 ND PIO Flags IANA considerations
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Abstract

The Prefix Information Option in the IPv6 Neighbor Discovery Router Advertisement defines an 8-bit flag field with two flags defined and the remaining 6 bits reserved (Reserved1). RFC 6275 has defined a new flag from this field without creating a IANA registry or updating RFC 4861. The purpose of this document is to request that IANA to create a new registry for the PIO flags to avoid potential conflict in the use of these flags. This document updates RFC 4861.

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1. Introduction

The Prefix Information Option in the IPv6 Neighbor Discovery Router Advertisement defines an 8-bit flag field with two flags defined and the remaining 6 bits reserved (Reserved1). RFC 6275 has defined a new flag from this field without creating a IANA registry or updating RFC 4861. The purpose of this document is to request that IANA to create a new registry for the PIO flags to avoid potential conflict in the use of these flags.

2. Current Prefix Information Option flags

Currently, the NDP Prefix Information Option contains the following one-bit flags defined in published RFCs:

```
+----------+
|L|A|R|Reserved1|
+----------+
```

Figure 1

L - On-link Flag [RFC4861]
A - Autonomous Address Configuration Flag [RFC4861]
R - Router Address Agent Flag [RFC6275]
Reserved1 - Reserved

3. Updates to RFC4861

This document updates Section 4.6.2 "Prefix Information" of [RFC4861] to point to the new IANA registry that is created in this document.

Specifically: The current list of flags in the Prefix Information Option can be found in [IANA-TBD].

4. IANA Considerations

The IANA is requested to create a new registry for IPv6 ND Prefix Information Option flags. This should include the current flags in the PIO option. The format for the registry is:
<table>
<thead>
<tr>
<th>RA Option Bit</th>
<th>Description</th>
<th>Reference</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>L - On-link Flag</td>
<td>[RFC4861]</td>
</tr>
<tr>
<td>1</td>
<td>A - Autonomous Address</td>
<td>[RFC4861]</td>
</tr>
<tr>
<td></td>
<td>Configuration Flag</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>R - Router Address Flag</td>
<td>[RFC6275]</td>
</tr>
</tbody>
</table>

Figure 2

The assignment of new flags in the PIO option header require standards action.

The registry for these flags should be added to: http://www.iana.org/assignments/icmpv6-parameters

5. Security Considerations

This document has no security considerations.

6. References

6.1. Normative References


6.2. Informative References


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