

Current Issues with DNS Configuration Options for SLAAC (draft-gont-6man-slaac-dns-config-issues)

**Fernando Gont
Pavel Simerda
Will Liu**

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Background

- Two ND options convey DNS-related info:
 - RDNSS: Recursive DNS servers
 - DNSSL: DNS Search List
- These options include a “lifetime” value:
 - It is the amount of time during which the info is valid
 - It is selected as a function of “MaxRtrAdvInterval”:
 $\text{MaxRtrAdvInterval} \leq \mathbf{\text{Lifetime}} \leq 2 * \text{MaxRtrAdvInterval}$

Problem statement

- The RDNSS/DNSSL “Lifetime” has been found to be too short
- Packet loss causes DNS info to be discarded
- Problem exacerbated in some implementations
 - DNS failures considered a “hard error”, affecting both IPv6 and IPv4 connectivity

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- Discusses the problem
- Essentially proposes to:
 - Change the default Lifetime value
 - Change the semantics of the Lifetime value
 - Note that hosts may use active probing with RSes
- **Adopt as 6man wg item?**