

# **Router Solicitation Refresh**

draft-ietf-6man-rs-refresh

IETF97

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# Context

- Range of hosts:
  - Always-on
  - Power-save and wakeup on packet
  - Sleep on schedule
- Note: RFC7772 clarifies multicast RA for power-saving mode
- Issue with updated RA information reaching hosts that sleep on schedule

# Sleeping on schedule and RAs

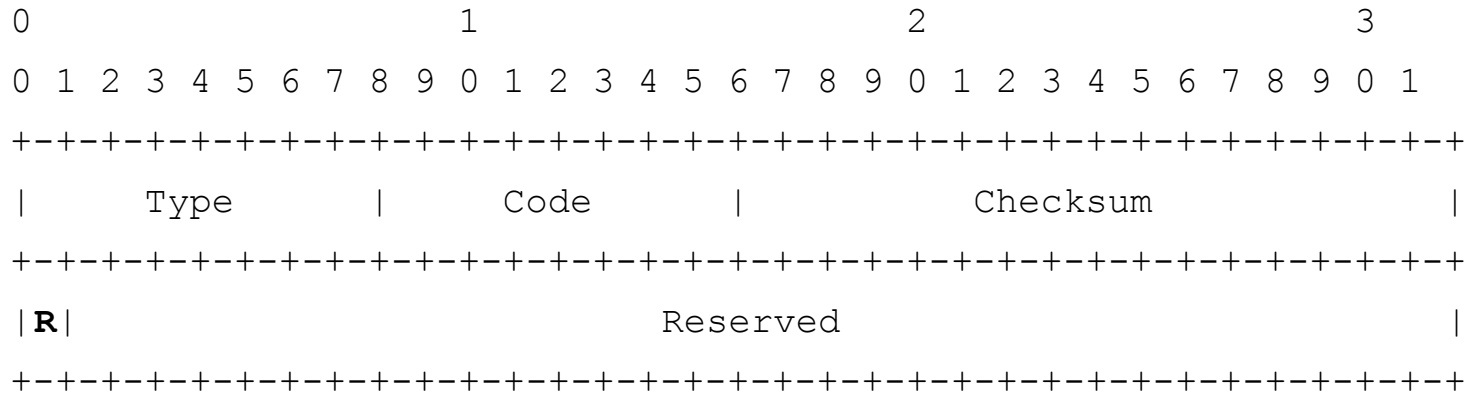
- Host wakes up every 10 seconds (or every 10 hours)
- Performs DNA to verify connected to same router (unicast NS/NA exchange)
- Sends app packet then back to sleep
- “Never” receives an unsolicited RA - asleep
- Resilient RS will kick in at some point
- Won't receive updated RA until that timeout

# Approach

- Decouple default router lifetime (triggers resilient RS) from RS refresh
  - Add refresh time option to the RA
- (On wakeup) a host checks whether time to refresh
- Routers SHOULD respond to unicast RS messages with unicast RAs
  - Allows doing DNA with RS/RA exchange



# New Router Solicitation Flag



## R-flag:

When set indicates that the sending host is capable of doing unicast RS refresh.

# Open Issues and Next steps

- Refresh Time 32 bits instead of 16? Max 18h with 16 bits. Inclined to change to 32
- Does the document capture the context on slide 2? Need reviews!
- Minor suggestions from Jinmei on mailing list
- Then ready for WG last call?