

Unicast Unsolicited Router Advertisements To Propagate Network Configuration Changes

draft-linkova-6man-ununra

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Background and Problem Statement

Network changes (e.g. renumbering) are propagated as multicast RAs

Multicast on WiFi is unreliable

draft-ietf-6man-slaac-renum proposes improvements

- * timers and number of RAs hard to get right
- * values depend on packet loss rate

Proposed Solution

When network changes need to be propagated, RAs are sent as unicast.

Options:

- * IPv6 unicast
 - * To REACHABLE/STALE link-local hosts in the ND cache
- * IPv6 multicast (ff02::1) sent as Ethernet unicast
 - * Using MACs for REACHABLE/STALE hosts in the ND cache

Optimizations

- * Spread the transmission evenly over MAX_RA_DELAY_TIME (5s)
- * Dampening (pause after 3 changes in 10 secs)
- * Should be configurable
 - * Enterprise WiFi often convert multicast2unicast

THOUGHTS?