Improving the Robustness of Stateless Address Autoconfiguration (SLAAC) to Flash Renumbering Events

(draft-ietf-6man-slaac-renum)

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6man WG. IETF 114
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Introduction

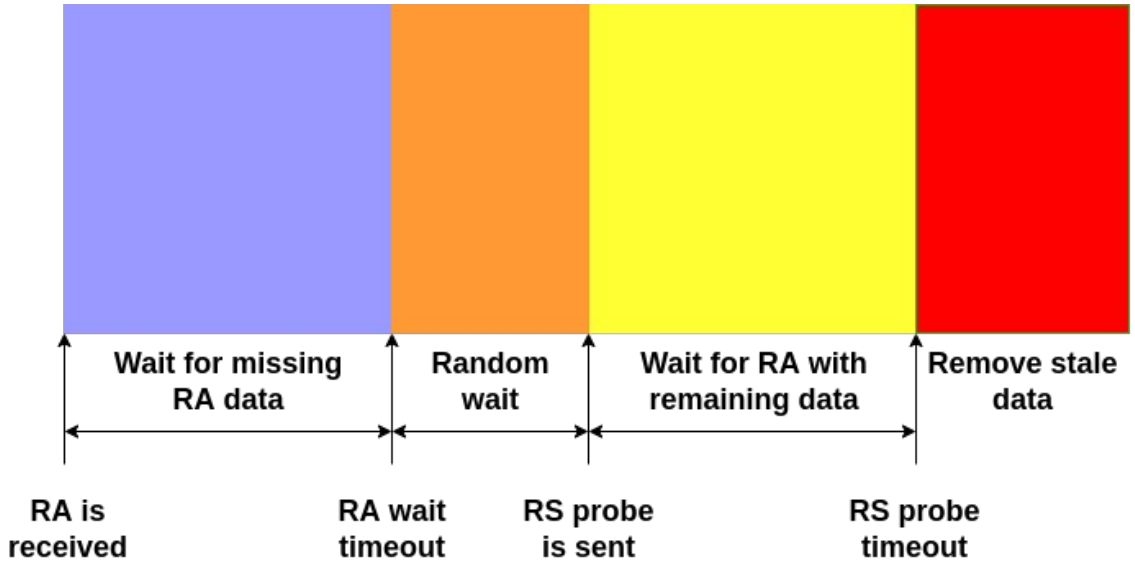
- RFC 8978: Problem statement for SLAAC flash renumbering
- RFC 9096: CE Router recommendations (Updates RFC7084)
- draft-ietf-6man-slaac-renum: **Protocol improvements**

Progress on draft-ietf-6man-slaac-renum

- Incorporating contents from draft-gont-6man-slaac-renum
- Recently polled the 6man wg on:
  - Recommending lifetimes for ND options
  - Conveying information in Router Advertisements
- Remaining feature to incorporate:
  - Heuristics to deprecate stale information
- We have improved the algorithm from draft-gont-6man-slaac-renum
  - Resulting algorithm is simpler
  - Avoids false positives

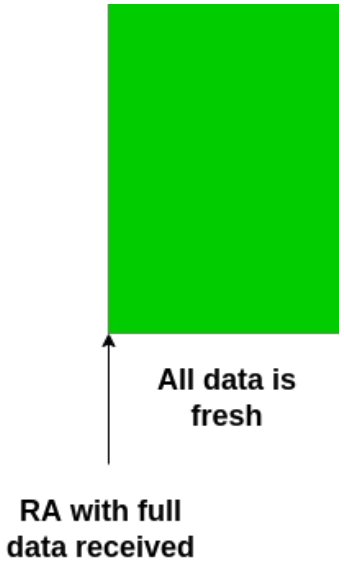
Concept

- Probe the local router when missing data is detected in received RA



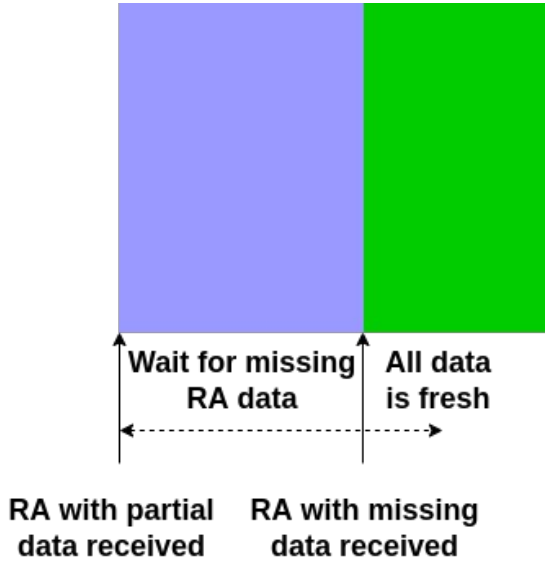
Fresh data: Normal case

- Received RA contains all previous information



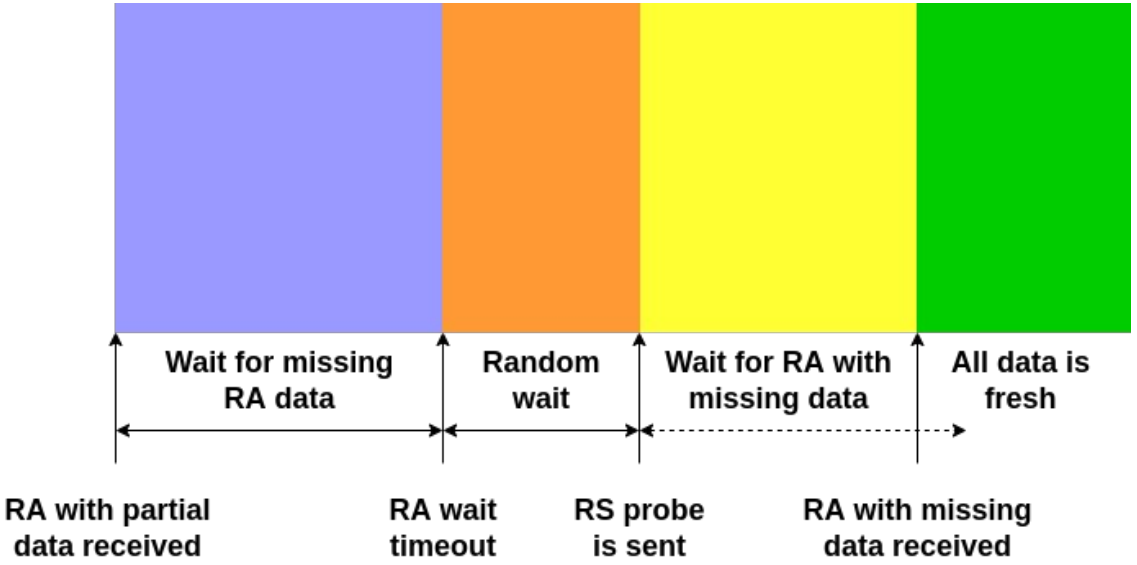
Fresh data: Corner case

- Local router splits information into multiple RAs



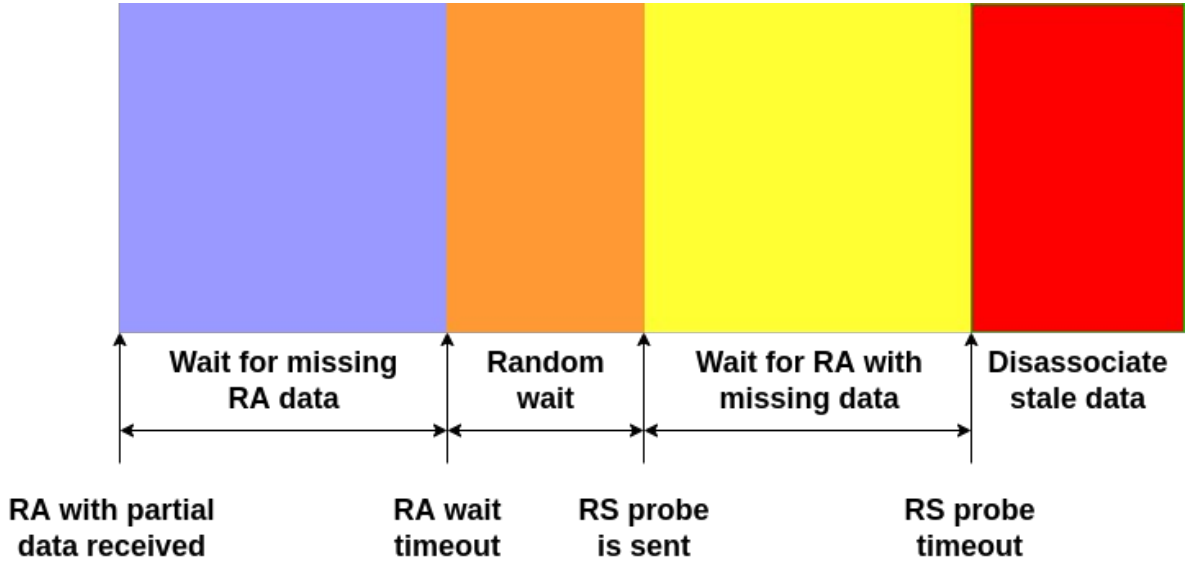
Fresh data: Corner case with packet loss

- Local router splits data into multiple RAs, and some are lost



Stale data: Flash renumbering event

- Data has become stale (flash-renumbering event)



Moving forward

- Comments/questions?