Discovering PREF64 in Router Advertisements

draft-ietf-6man-ra-pref64-00

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Concerns Raised in the Adoption Call

“There Are Three Other Solutions”

- None of them are suitable for secure prefix discovery in SLAAC-only networks (e.g., cell networks)
  - DHCP - see “**SLAAC-only**”
  - PCP - requires PCP server and client support
  - RFC7050 - see “**secure**”

“Requires Updates/Configure Routers”

- Feature, not a bug: shares fate with routing
- Routers are upgraded to get new features and bug fixes
- Routers already configured with:
  - Prefixes
  - Timers
  - DNS

Let's Unify DHCPv6 and RA Options

- Beyond the scope of this draft :-)
- Unlikely to gain consensus this decade?

Improvement Suggestions

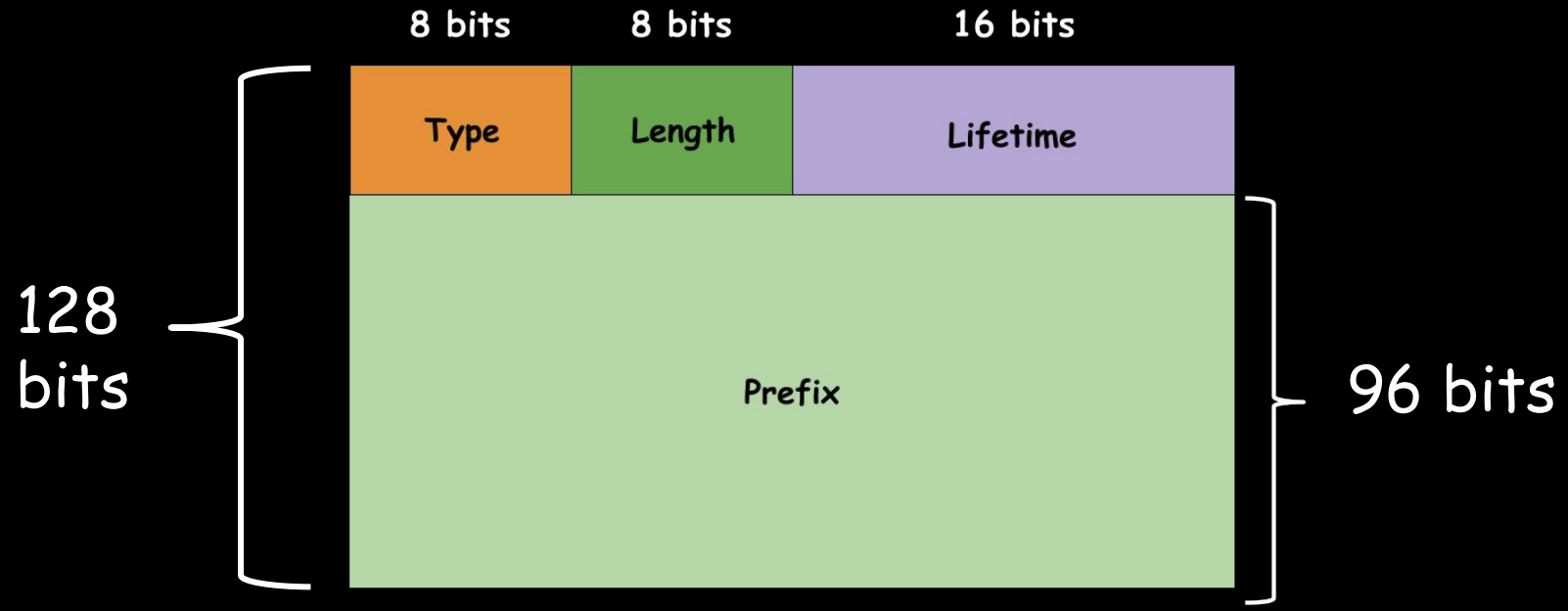
Adding "Exclude-Set" for IPv4 Ranges

- Almost certainly not useful in IPv6-only networks
- **Might** be useful in a network that has NAT64 and IPv4
- Should be a separate RA option, to save space

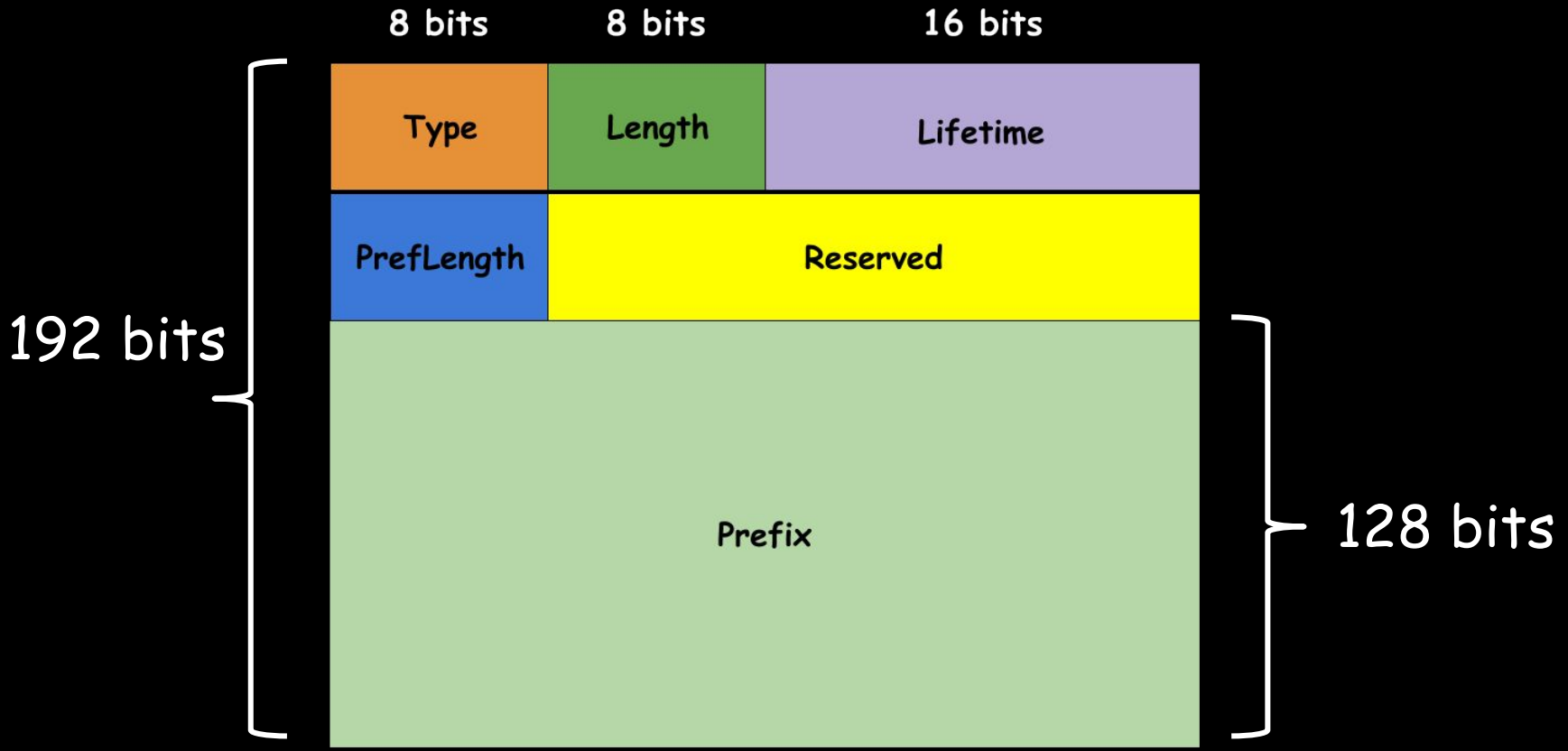
Non-/96 PREF64 Support

- One use case was mentioned
- How shall we do that?

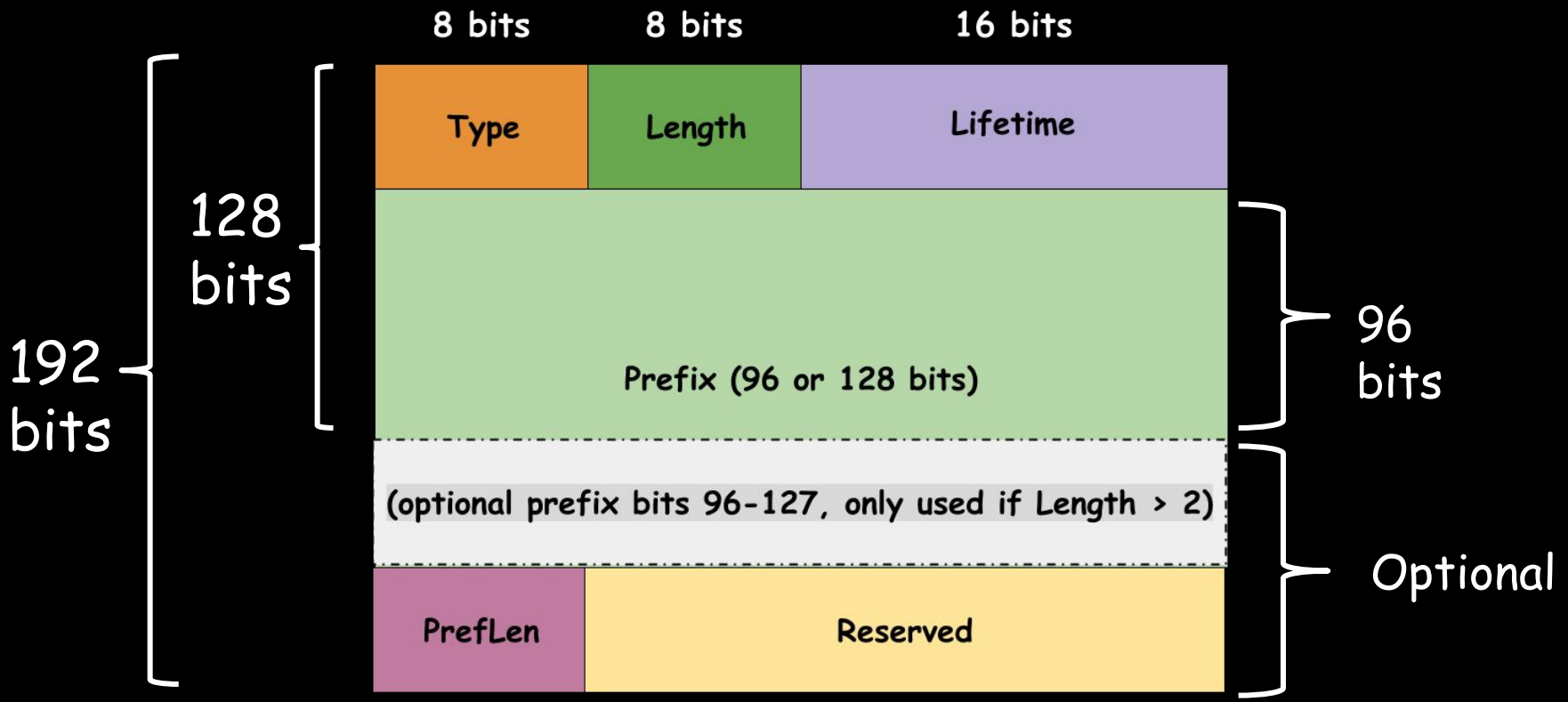
The Proposed Option Format



Non-/96 PREF64 Support: #1



Non-/96 PREF64 Support: #2



Non-/96 PREF64 Support: Option3

Separate RA Option?

Use draft-troan-6man-universal-ra-option?

Changes Since Adoption

- Clarifying the use cases:
  - Local DNSSEC validation
  - 464xlat
  - IPv4 literals
  - Using external/trusted DNS server
  - Eliminating DNS64
- Clarifying multiple options in one RA case

Comments?