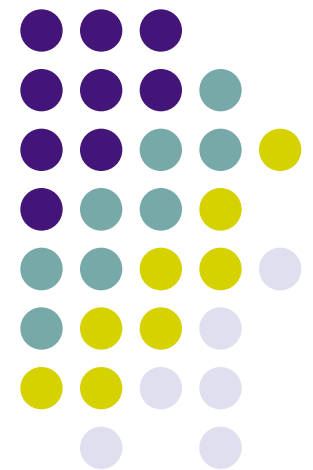


IPv6 RA Options for Multiple Interface Next Hop Routes

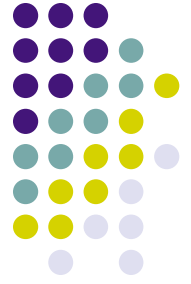
Behcet Sarikaya(sarikaya@ieee.org)

IETF 85



draft-sarikaya-mif-6man-ra-route-01

RA Route Option Motivation



- RFC 4191 defines Route Information Option
- Prf field is to prefer the router associated with this IPv6 destination prefix
- Next hop address is missing
- Next hop address metric is missing
- So we need 4191bis
- We added the above to the Route Information Option and the new option is called Route Prefix Option (RPO)

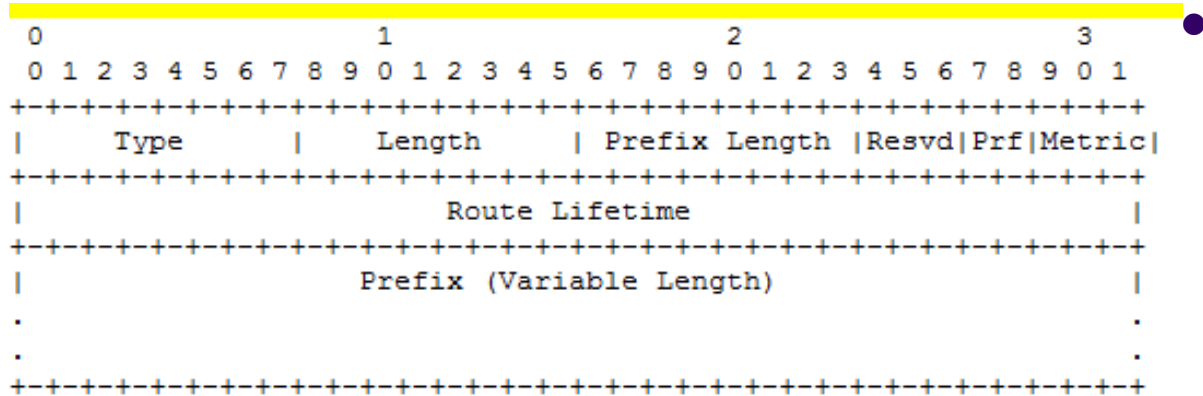


RA Route Option

Motivation - Continued

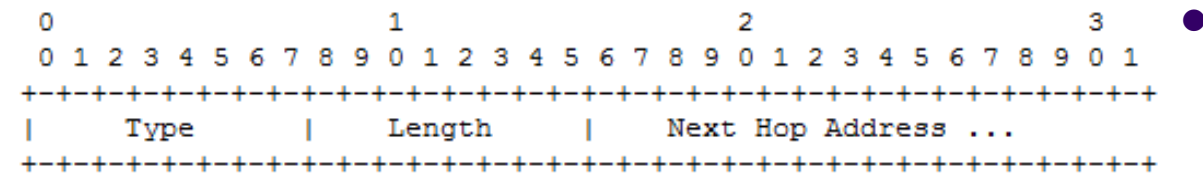
- **Next Hop Address in Route Prefix option**
- Next Hop Address option
 - Next hop address represents the IPv6 destination prefixes reachable via the given next hop
 - **Next hop address metric** to prefer the next hop associated with this IPv6 destination prefix over others, when multiple identical prefixes (for different next hops) have been received
 - Includes next hop with RPO in one option to designate that specific routes are available via routers
 - If there is more than one route available via specific next hop, then one next hop which contains multiple route prefix options, i.e. **Next Hop Address and RPO** needs to be included in RA (slide 5)
- RA based solution
 - Assume clients that know what to do with the info
 - Those that don't simply ignore

Proposed RA Options



RPO

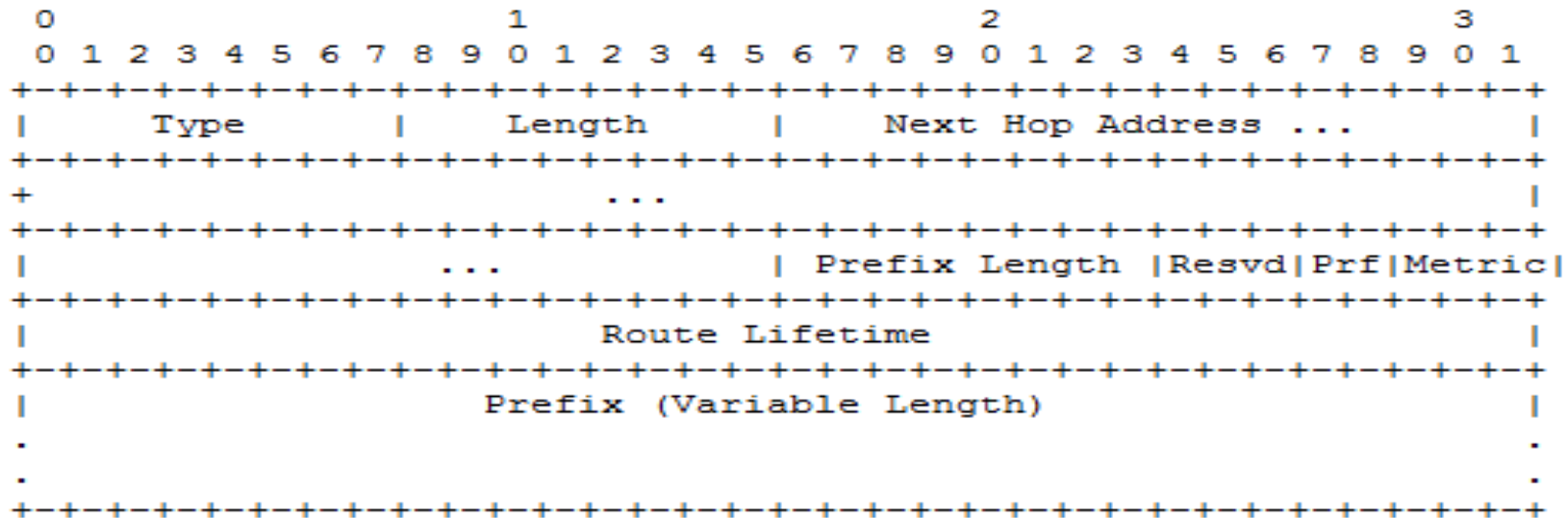
- Defines the destination prefix
- Borrows from RFC4191 in using the Reserved and Prf values
- Adds metric in place of resvd
- Prf is for preferring the router and metric is for preferring the next hop



Next Hop Address

- Defines IPv6 next hop address.

Proposed RA Options



- **Next Hop Address and RPO**
 - Defines the two options together in one option

Next Steps

- Is 6man interested in this work?

