

Issues with the IP Router Alert Option

draft-manner-router-alert-iana-00

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Current status

- IANA defines currently
 - 1 IPv4 RAO value: 0 (router shall examine packet)
 - 36 IPv6 RAO values:
 - 0: Multicast Listener Discovery message
 - 1: RSVP
 - 2: Active Networks message
 - 3-35: 32 RSVP aggregation levels (note: 33 values!)

Why changes are needed?

- There are multiple IPv4 RAO values in use but no procedure for allocating them
- NSIS needs new v4/v6 RAO values to support interception of signalling application packets
- IPv6 RAO currently has 2 values for end-to-end IPv6 RSVP (when only one is needed)
- RSVP Aggregation needs 32 values, but 33 are allocated for IPv6

The proposal

- Register in IPv4 RAO IANA registry the values defined in various RFCs (e.g., RFC3175 and NSIS in the future)
- Fix the IPv6 registry mismatch by removing value (3) allocated for Aggregation Level 0 (thus leaving 32 aggregation levels in addition to end-to-end)