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)