

Deprecation Of The IPv6 Router Alert Option

draft-ietf-6man-deprecate-router-alert-00

Goal

- Deprecate the IPv6 Router Alert Option
- Protocols that use the Router Alert Option may continue to do so
 - Even in future versions
- Protocols standardized in the future **MUST NOT** use the Router Alert Option

Motivation

- Migrate towards an architecture in which all HBH Options are processed on the forwarding plane
 - Reduce HBH access to the control plane
- Reduce operator motivation to discard all packets containing HBH Options

Can All Router Alert Use-Cases Be Addressed By Other Means?

RSVP-TE Use Case

- Send a PDU from an MPLS ingress node to an MPLS egress node
- Cause every node along the delivery path to process the message

RSVP-TE Alternative to Router Alert

- Ingress node encodes the MPLS egress address in the message body
- Ingress node sends a message addressed to the first node along the delivery path
 - First node processes the message
 - First node sends a message addressed to the next node along the delivery path
 - Repeat
- Solution is widely deployed

MLDv2 Use Case

- Send an MLDv2 message addressed to an IPv6 multicast address
- Cause every router on the segment to examine and process the message, even if it has no interest in that IPv6 multicast address

MLDv3 Alternative to Router Alert

- Encode the IPv6 Multicast Address in an MLDv2 message
- Send the message to a well-know IPv6 Multicast Address
 - Example: ALL-MLDv2-Routers
- Solution is not standardized, implemented or deployed

Next Steps

- WG Last Call