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Mtrace6: Traceroute Facility for IPv6 Multicast

draft-asaeda-mboned-mtrace6-00

Hitoshi Asaeda (Keio Univ.)

Tatsuya Jinmei (Toshiba Corp.)

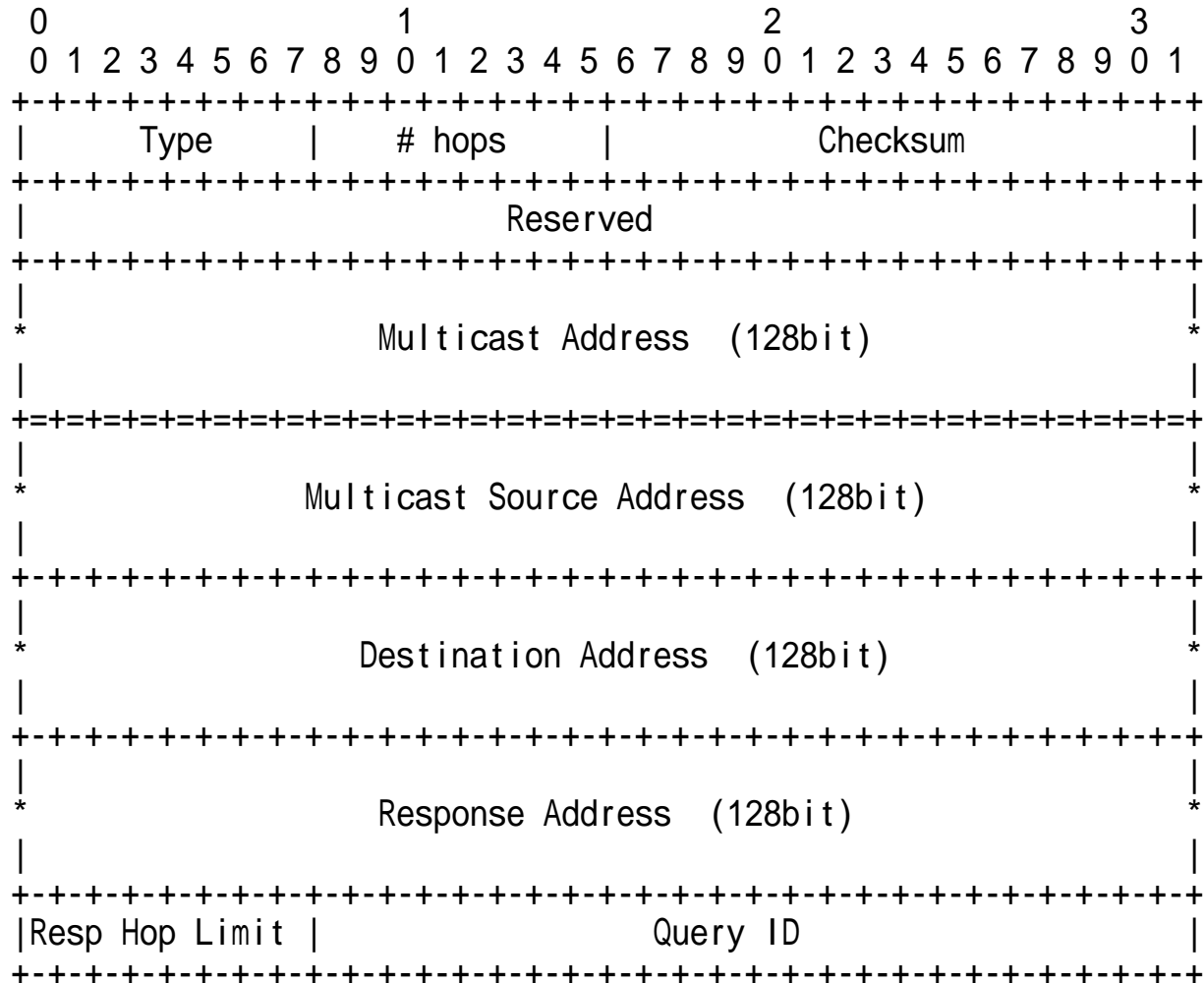
Overview

- Motivation
 - Provide IPv6 multicast traceroute facility in multicast routers
- Approach
 - Inherit functions defined in the mtrace draft
 - draft-fenner-traceroute-ipm-00.txt
 - Define ICMPv6 message format IPv6 multicast traceroute (mtrace6) uses
 - Clarify the difference between mtrace and mtrace6

Outline

- Brief introduction
 - How different from mtrace (IPv4 multicast traceroute)
 - Require ICMPv6 type values mtrace6 uses
 - Allow to use link-local and global scope unicast addresses for router's response
 - Keep unused routing protocols?
- Discussion
 - Should be integrated or merged with the original mtrace draft?

Mtrace6 Header



Routing Protocols in Use

- Routing protocols defined in the original mtrace draft are;
 - 1 DVMRP
 - 2 MOSPF
 - 3 PIM
 - 4 CBT
 - 5 PIM using special routing table
 - 6 PIM using a static route
 - 7 DVMRP using a static route
 - 8 PIM using MBGP route
 - 9 CBT using special routing table
 - 10 CBT using a static route
 - 11 PIM using state created by Assert processing

IANA Issue

- Need assignment of ICMPv6 type values;
 - MTRACE6_QRYREQ for mtrace6 queries
 - MTRACE6_RESP, which is used when the packet is completed and sent as a response from the first hop router to the querier

Next Steps

- Refine the design and contents
 - Use of link-local address, global scope address, and corresponding interface ID (given from MIB etc.)
 - Clarify corresponding MIB entry
- Fix TBD
 - Routing protocol in use
 - IANA issues
- Implementation
 - Please mail to the authors or MBONED WG ML if you know the router / command implementation or plan to implement it

Discussion

- Should be integrated or merged with the original mtrace draft?
 - It's good to integrate the draft since most functions are same, or it's good to separate the drafts since there are various differences;
 - Message header, protocol, address, etc.
 - Defined routing protocols (?)
 - Behavior due to addressing architecture
 - Bill said, “good to integrate the draft”