

Advertising IGP Measurement Groups

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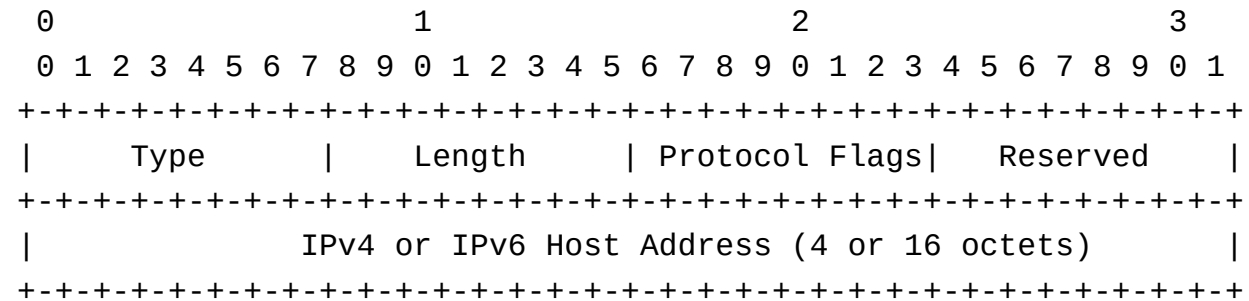
draft-admnr-lsr-igp-measurement-group
<https://datatracker.ietf.org/doc/draft-admnr-lsr-igp-measurement-group/>

PROBLEM & MOTIVATION

- Routers participate in different measurement groups (e.g. TWAMP, STAMP) as Session-Reflectors (and/or Senders). IGP is used to discover endpoints so Session-Senders or controllers can set up measurement sessions with minimal manual configuration
- Requirements for discovery:
 - IGP routers must discover which routers are in which measurement groups
 - Discovery must work across IGP areas (information leakable across area boundaries)
 - Use interface address (IPv4 or IPv6) to identify membership; same address MAY be used for multiple groups

SOLUTION: AMP MEASUREMENT GROUP SUB-TLV

- New IS-IS capability sub-TLV in Router Capability TLV (242) [RFC7981]



Protocol Flags (1 octet):

Bit	Protocol
0	TWAMP [RFC5357]
1	STAMP [RFC8762]
2-7	Reserved (IANA)

OPERATIONS

- One sub-TLV instance per endpoint (interface address); Protocol Flags indicate which protocols that endpoint supports
- Multiple instances allowed for multiple endpoints or protocols (single instance with multiple bits set, or multiple instances)
- Receivers build a measurement group membership database for automatic session configuration
- Router Capability TLV is propagated across area boundaries when area leaking is configured
- Membership changes → update advertisement → receivers update their database

SUMMARY & NEXT STEPS

- IANA:
 - One new sub-TLV type in "IS-IS Router Capability TLV sub-TLVs".
 - New "AMP Measurement Group Protocol Flags" registry (Bits 2-7 unassigned, IETF Review)
- Security:
 - Same as IS-IS; false sub-TLVs can cause wrong endpoints, failed sessions, misconfiguration — use authentication (e.g. [RFC5304])
- Ask:
 - Confirm the need and validate the approach
 - OSPF will be included in a future update