



IETF 102 – Montreal
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IDR Working Group

draft-ketant-idr-bgp-ls-flex-algo-00

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Problem Statement

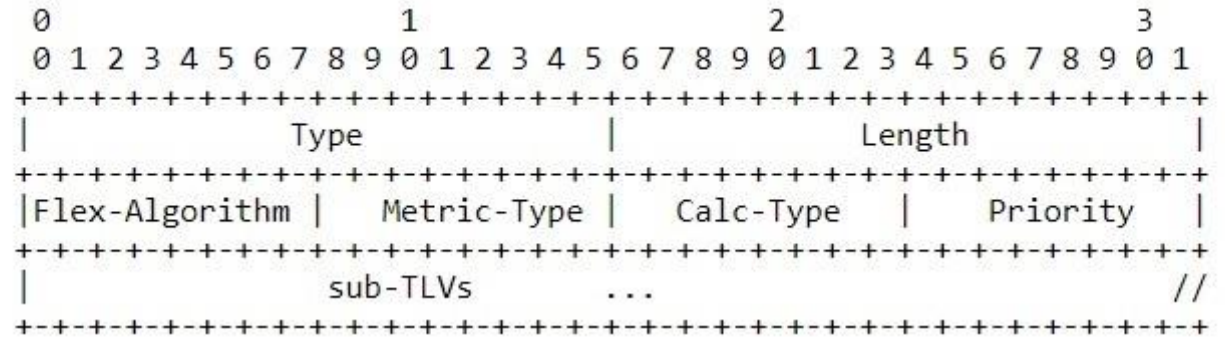
- Flexible Algorithm enables operators to setup IGPs to perform constrained based topology computation
- Each Flex-Algo can be defined by
 - The type of calculation to be used (e.g. shortest path or strict SPF)
 - The metric type of be used (e.g. IGP metric, delay, TE metric)
 - The set of constraints to be applied (e.g. extended admin group/affinities)
- PCE/controller learns IGP topology from multiple domains and computes end to end SR Policies
- SR Policies can be setup with smaller SID stack when using flex-algo prefix SID that follows similar constraints & optimization objective
- The advertisement of IGP flex-algo definition via BGP-LS enables PCE/controller to map the intent of the SR Policies to Flex-Algo

What does this draft propose?

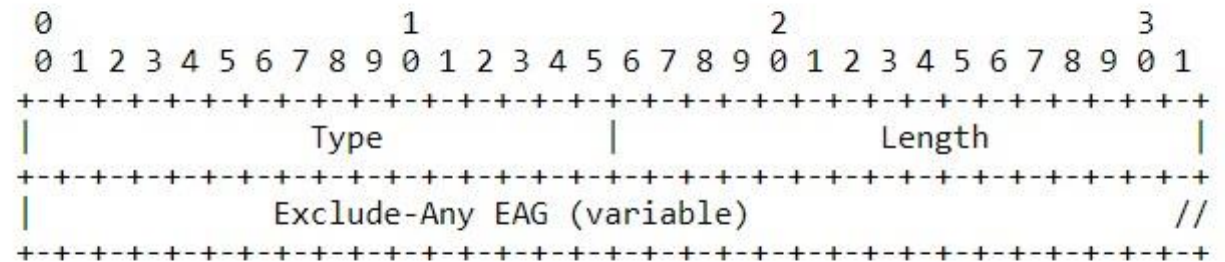
- The Flex-Algo definition is advertised by one or more routers in an IGP domain as a node attribute
 - As specified in draft-ietf-lsr-flex-algo for both OSPF & IS-IS
- Advertise the same Flex-Algo definition as node attribute via BGP-LS
- Enable learning of the mapping of flex-algos to their definition for a PCE/controller

Flex-Algo Definition TLV

- Attribute signalled as part of the Node NLRI



- Sub-TLVs for affinity constraints



Next Steps

- Requesting WG review and any inputs/feedback