

BGP FlowSpec with Time Constraints

draft-liang-idr-bgp-flowspec-time-00

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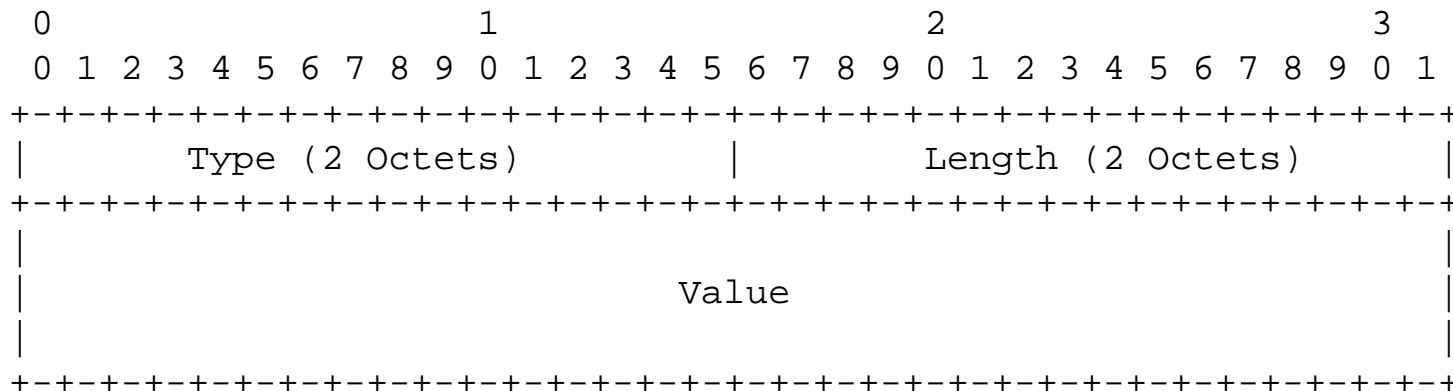
Motivation

- DDoS attacks are dynamic
 - Filtering of a flow may only be necessary for some specified time
- Deploy ACLs dynamically and flexibly
 - Steering traffic may only be necessary for some specified time.
 - Currently ACL with Time-Range is a popular feature. If we deploy ACL with Flowspec, a Time-Range descriptor needs to be considered.

FlowSpec Extended Attribute

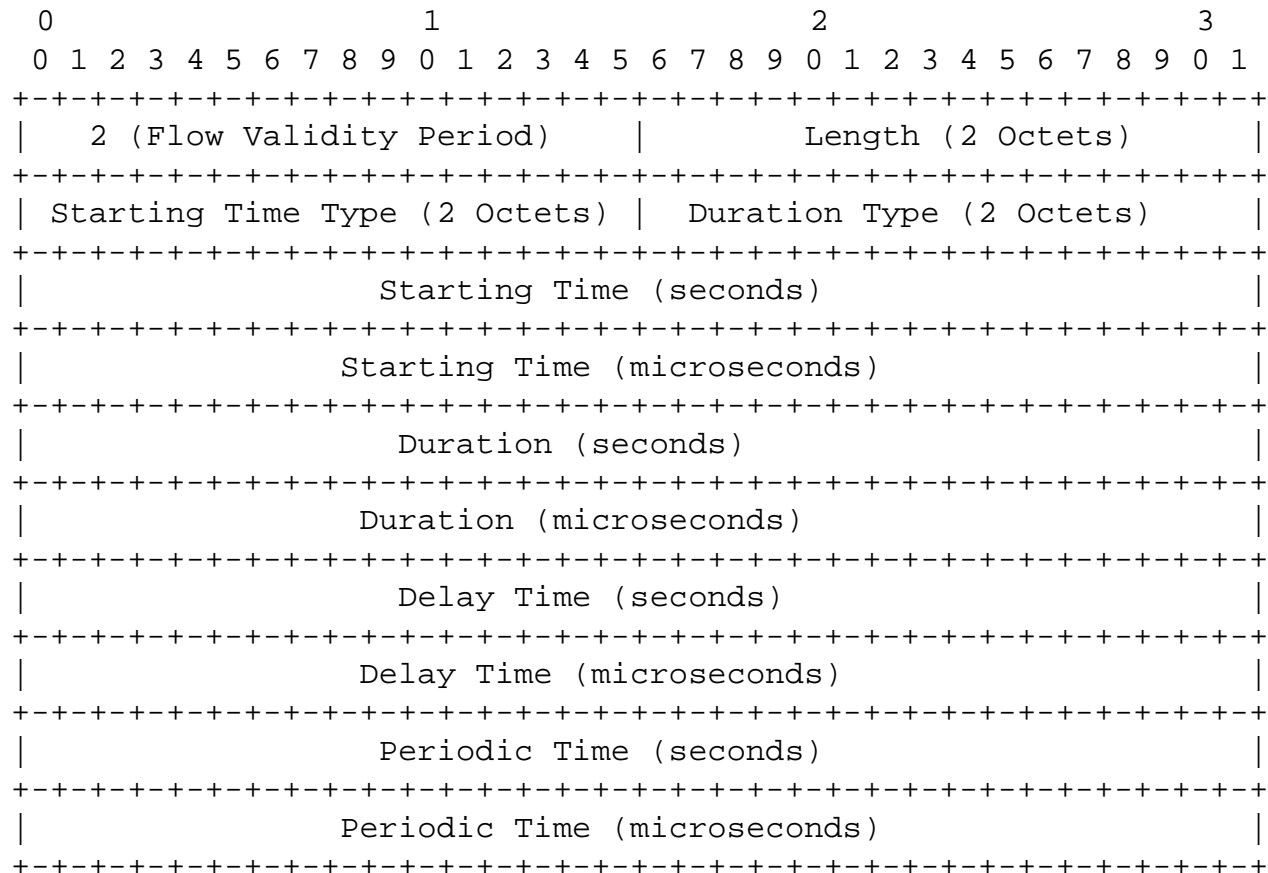
A new BGP path attribute called “Flow Extended Attribute” is defined; it carries expected valid period information for a FlowSpec rule.

This “Flow Extended Attribute” is an optional transitive attribute that is composed of a set of Type-Length-Value (TLV) encodings, including Flow Description sub-TLV and Flow Validation Period sub-TLV.



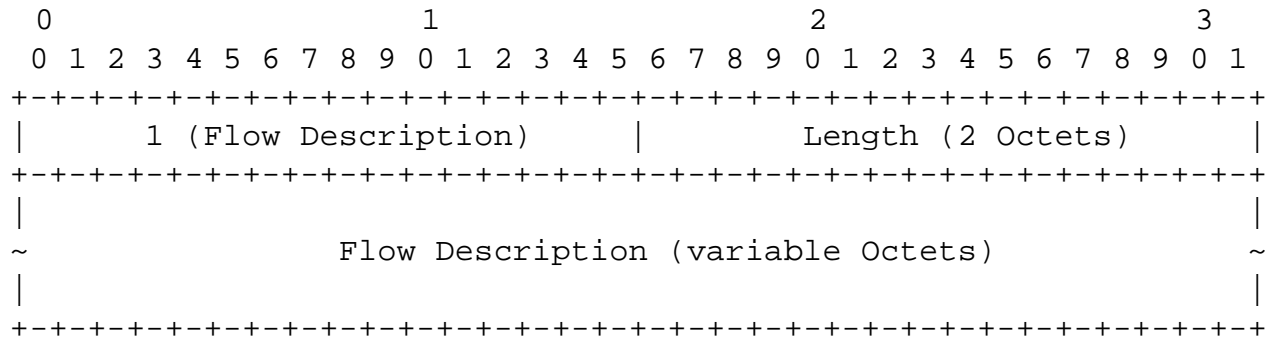
Flow Validity Period sub-TLV

The Validity Period sub-TLV is the expected valid period information for a FlowSpec rule.



Flow Description sub-TLV

The Flow Description sub-TLV is usually used as a flow name or flow function description, in order to make the FlowSpec rule more readable in diagnosing and logging.



Questions from Mailing List

- Issue of usecases
 - ❑ Existing example such as ACL with Time Range.
- Should we limit it to FlowSpec AF?
 - ❑ Maybe applied to other AFI/SAFI in the future. Until now , the possible usecases confine to FlowSpec AF.
- Why choose a new path attribute rather than individual new flow components?
 - ❑ Filtering a flow through Time-Range maybe a new usecase out of the scope of this draft.

Next Step

- Sync with drafts in other WGs such as draft-zhuang-teas-scheduled-resources-00, etc.
- Solicit more comments
- Refine the draft

Thank You!