

Distributed Flow Measurement in IPv6

draft-wang-ippm-ipv6-distributed-flow-measurement-01

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IETF-115

Overview

Motivation

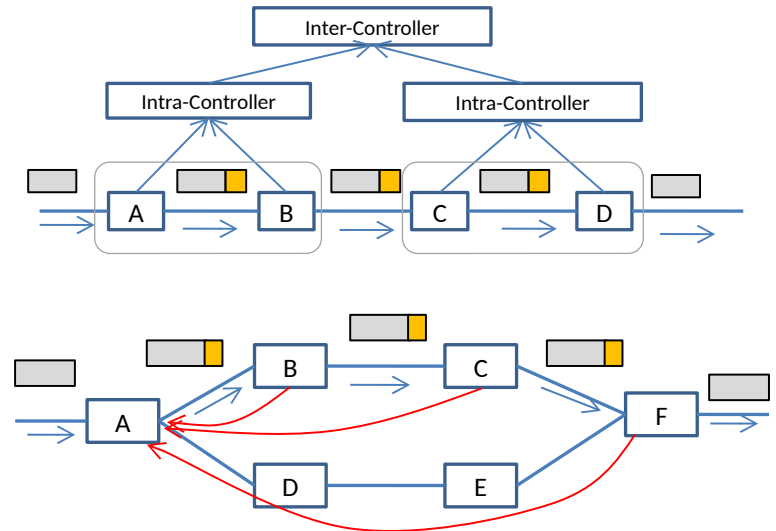
- Generally, in-band network telemetry utilizes **controllers** to collect measured data and calculate the packet loss and delay.
- In a **multiple-domain scenario**, intra-domain controllers collect measured data of each node, while inter-domain controllers calculate the end-to-end results. Their interaction is required.
- The controller **interaction** induces the complexity and degrades the instantaneity of measurement, which is risky to guarantee the high SLA requirements of customers such as banks and finance.

Purpose

- Propose a distributed flow performance measurement method **without** the participation of the controller
- The measurement results can be used by the router to select the forwarding path that meets the high SLA requirements

Content

- Define node model, Extension to measurement information and result notification
- More details can be found in the draft



Flow Measurement in IPv6 Network

draft-wang-ippm-ipv6-flow-measurement-03

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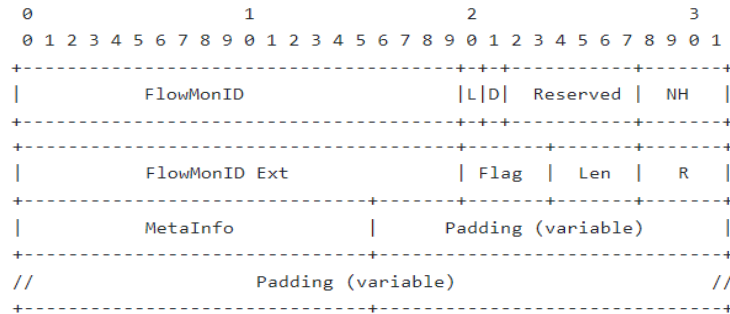
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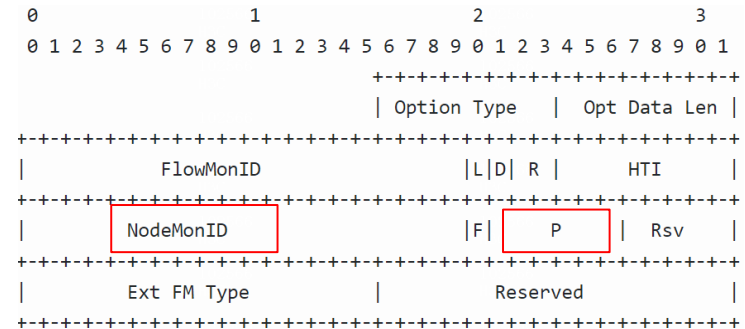
Overview

Requirement

- Zhou has extended the IPv6 Alternate Marking Option to provide enhanced capabilities and allow advanced functionalities. This is helpful for applications and deployments.
- On-path flow measurement (i.e. in-band network telemetry) is going to research and deploy in ChinaMobile. From the test results in our lab, it is better for flexible deployments on condition that a node id and a steerable measurement period can be enabled in data plane.



draft-zhou-ippm-enhanced-alternate-marking



This draft

Objective

- To flexibly deploy on-path flow performance measurement based on **Alternate-Marking** method in IPv6 domain with the participation of a controller, a node ID and a **steerable measurement period** is enabled.

More details can be found in the draft

Next

- Any comments and feedbacks are welcomed!
- Continue to improve the draft.