

# Export of On-Path Delay in IPFIX

draft-opsawg-ipfix-on-path-telemetry-02

Enabling a statistical network delay view, giving insights  
where delay is being accumulated in the forwarding path

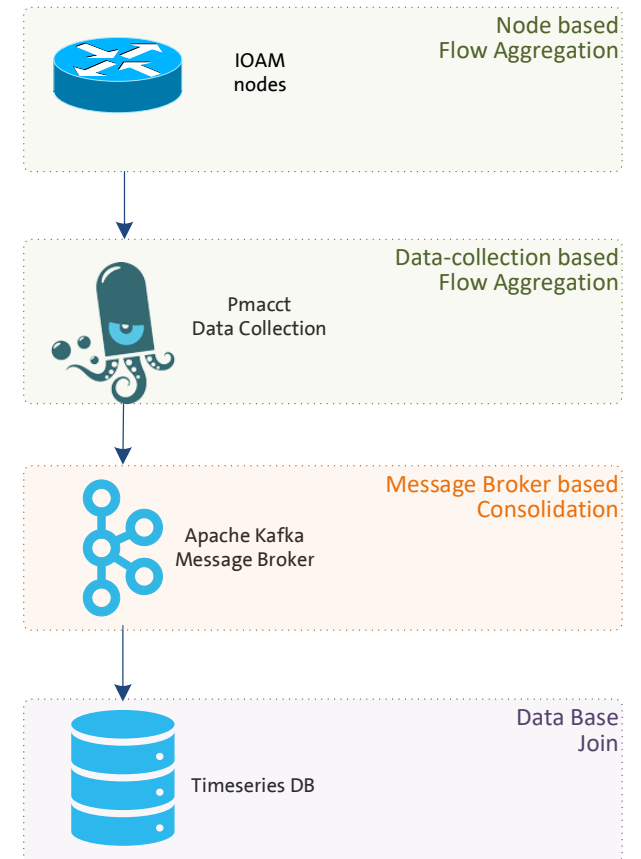
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27. March 2023

# On-Path Delay @ IPFIX

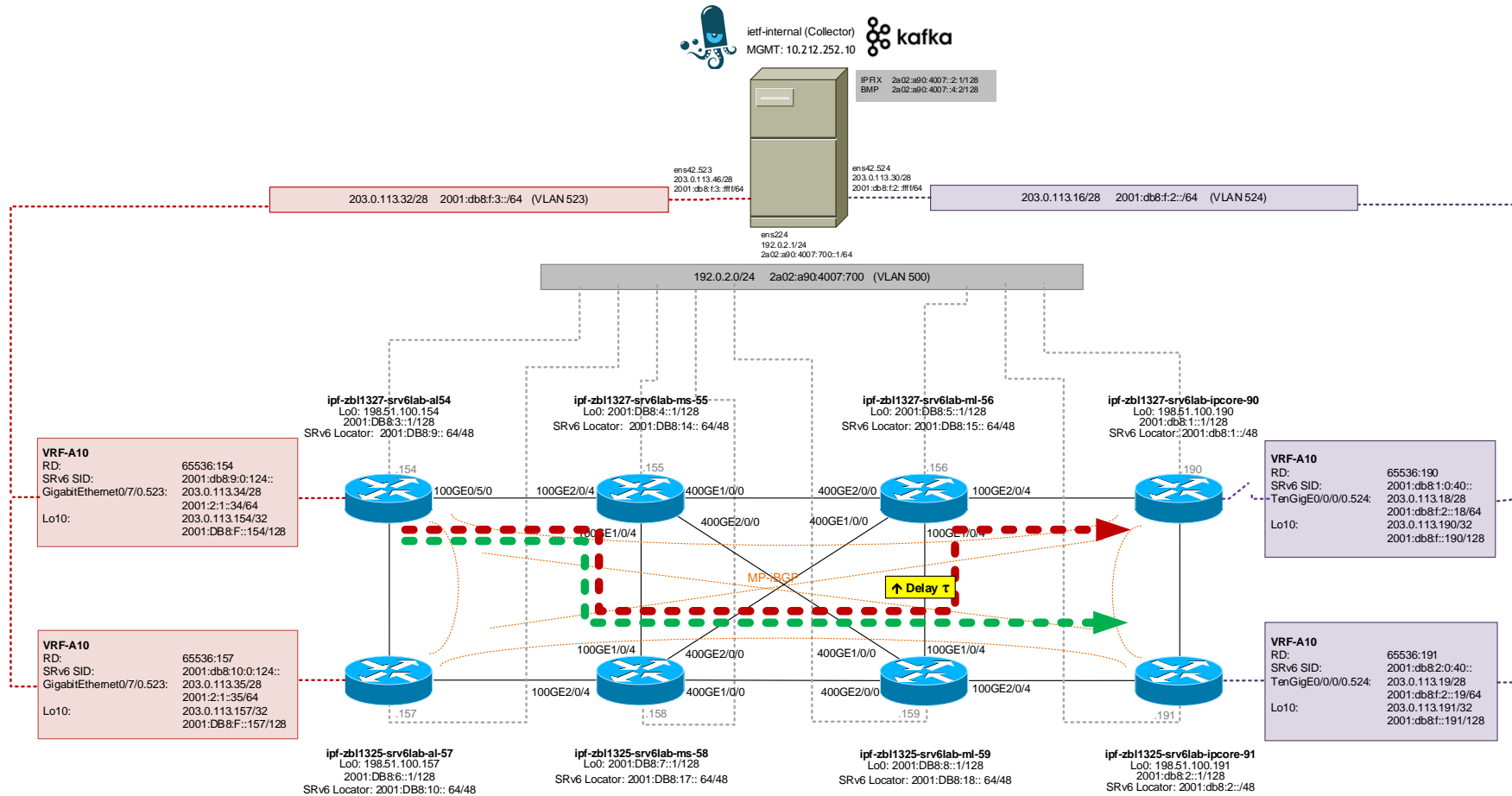
Draft Status

- **Extended the introduction and the terminology section** with performance registry relevant information's.
- Corrected some small nits in the performance registry sections.
- **Increased IPFIX entity data type sizes** based on implementation tests results.
- Corrected IPFIX entity data type semantic.
- Describing **how IPFIX reduced-size encoding is applicable** in new operational consideration section.
- According input from Greg Mirsky **detailing IOAM Application section.**
- **Removed nanosecond granularity.**
- **Added Implementation Status section.**



# On-Path Delay @ IPFIX

Running Code at IETF 116 hackathon



- INSA Lyon showed running open-source code based on IOAM-Trace-Type in FD.io VPP (<https://github.com/network-analytics/vpp-srh-onpath-telemetry>) and Huawei based on IFIT SRH TLV their implementation in VRP.
- [pmacct](#) data collection calculates PathDelayMeanDeltaMi croseconds by dividing PathDelaySumDeltaMic roseconds by packetDeltaCount.

# On-Path Delay @ IPFIX

Running Code at IETF 116 hackathon

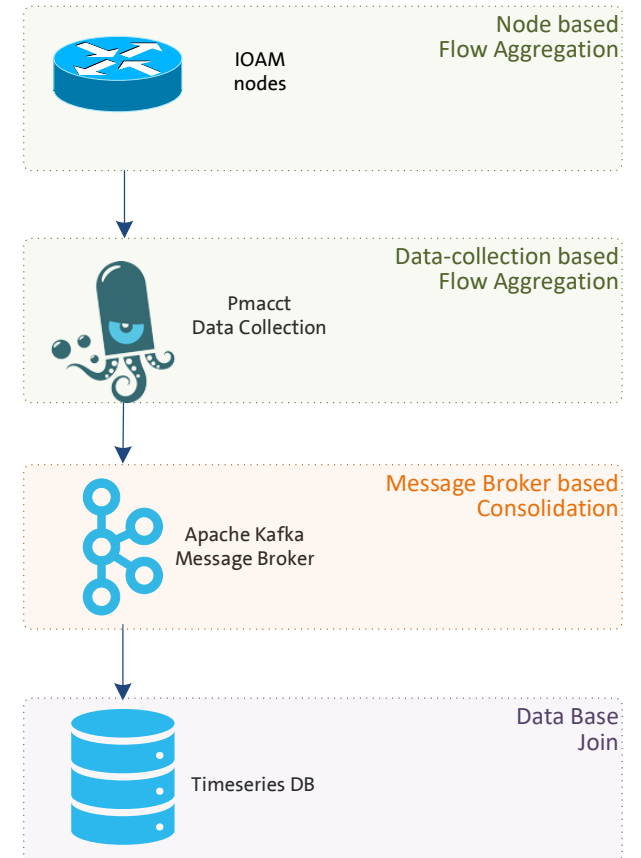


- (1) Shows SRv6 SID list change of the traffic engineered paths.
- (2) Shows on which node how much on-path delay was being measured.
- (3) Shows the BGP update/withdrawals from the topology change.
- (4) Shows that Network Anomaly Detection detects the topology and delay change and the Max Concern Score calculation.

# On-Path Delay @ IPFIX

## Next steps

- **Do you recognize the problem statement?**
- Network operators want to understand
  - **where delay with which network and device dimensions** is being accumulated
  - at highest scale **for a statistical network delay view.**
- IEs in document defined are independent from how the delay is being metered.
- Two vendors are validating technical feasibility. Others showing interest.
- Draft version -03 will contain data record and template examples.



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