Export of Flow Precision Availability Metrics Using IPFIX
draft-clemm-opsawg-pam-ipfix-00

Alexander Clemm, Mohamed Boucadair, Greg Mirsky
Background

• draft-ietf-ippm-pam defines Precision Availability Metrics for services governed by Service Level Objectives
  • Violated Intervals being one key metric
  • In general, related to a given flow over time

• Not defined: how to collect, retrieve, export those metrics
• IPFIX allows to export flow records with statistics about flows
• This draft: extend IPFIX to export PAM
Overview

• Draft specifies largely based on definitions for a set of new IPFIX Information Elements
  • First category to reflect Precision Availability Metrics (per ietf-ippm-pam)
    • Violated Intervals Count, Violation-Free Intervals Count, Mean Time between VIIs, etc
  • Second category to reflect “manifest” to provide required context
    • Precision Availability Interval Length
    • SLO Identifier
      • What is a violation or not depends on the SLO, not just on observed service levels
      • Representation of SLOs themselves a possibility but may not be required
  • Not every PAM is reflected
    • Some can be easily computed by processor of the record (e.g. violated interval ratio)
    • Some are for further study, omitted for now to keep the set relatively lean
  • Currently, 9 Information Elements have been defined
Discussion

• OPSAWG vs IPPM
  • IPPM defines the underlying metrics, this draft builds on that
  • However, IPFIX expertise and scope lies more with OPSAWG
• We are trying to gauge interest & solicit feedback for this work
• Next steps will include assessing if more IEs should be included (including SLO context/manifest)
THANK YOU!

Comments? Questions? Please contact us
draft-clemm-opsawg-pam-ipfix@ietf.org