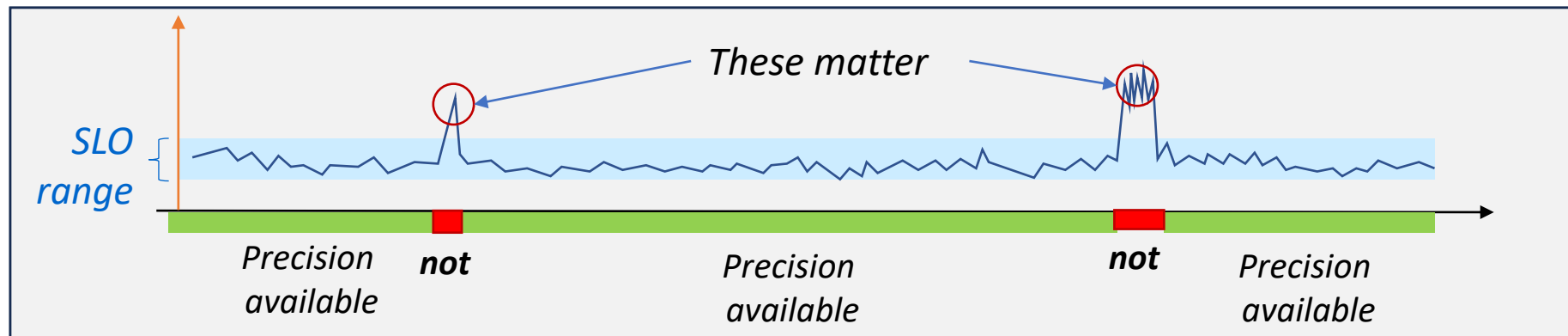


Export of Flow Precision Availability Metrics Using IPFIX (draft-clemm-opsawg-pam-ipfix): Background

- **Context:** draft-ietf-ippm-pam (now in IESG review) 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



- **The Problem:** How to collect, retrieve, export those metrics are not defined
- **The Proposed Solution:** Extends IPFIX to export PAM
- **Why IPFIX?:** IPFIX is used by operators to export flow records with statistics about flows

Draft Overview and Next Steps

- **Scope:** Specifies 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 VIs, 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
 - Currently, 9 Information Elements have been defined
 - Was first presented in OPSAWG (due to IPFIX)
- **Why IPPM WG?**
 - It was suggested to move to IPPM due to PAM subject matter - pending positive feedback may resubmit into IPPM shortly
 - Cross-WG Reviews
 - Authors commit to ensure cross review the specification in ippm, opsawg, and ipfix lists.

THANK YOU!

Comments? Questions? Please contact us

Alexander Clemm (Futurewei)

Mohamed Boucadair (Orange)

Greg Mirsky (Ericsson)

draft-clemm-opsawg-pam-ipfix@ietf.org