Mallory Knodel, Center for Democracy & Technology 7 September 2022

"<u>Guidelines for Performing Safe Measurement on the Internet</u>" has been submitted to the <u>Management</u> <u>Techniques in Encrypted Networks</u> workshop in order to take a step back by presenting a framework for addressing the tradeoffs of internet measurement that is user-centric and privacy-enabling. Within the aim of the workshop, "to improve network management techniques in support of even broader adoption of encryption on the Internet," this submission presents additional "guidelines for ensuring that such measurements can be carried out safely," as an improvement on network management from a user perspective.

This guidelines document is an internet-draft within the Privacy Enhancements and Assessments Research Group of the Internet Research Task Force and outlines several key and pertinent concepts for attendees of the M-TEN workshop:

- Problem statement
  - Threat Model: "Every Internet measurement study has the potential to subject Internet users to threat actions, or attacks, eg" surveillance, data precarity, traffic generation, traffic modification.
  - Measurement Techniques: Active/passive; on/off-path; one/two ended.
  - User Impacts and Harms
- User consent
- Safety considerations
  - Isolate risks
  - Be respectful
  - Minimize data

Perhaps it is the final safety consideration, minimize data, that speaks directly to the workshop's aim to make encryption of network traffic more ubiquitous: in an effort to detect and measure there is a tendency to proliferate data, in particular metadata. Where most implementations of strong encryption protocols should be minimizing metadata, while fully obfuscating content, it should not then be deemed an acceptable measurement technique to reintroduce data points at the network level for the purposes of management and measurement.

Link to the active internet-draft: https://datatracker.ietf.org/doc/html/draft-irtf-pearg-safe-internet-measurement

Discussion of draft-safe-internet-measurement happens on the PEARG list: pearg@irtf.org.

Issues and pull requests are accepted here: https://github.com/IRTF-PEARG/draft-safe-internet-measurement