

A Data Manifest for Contextualized Telemetry Data

[draft-ietf-opsawg-collected-data-manifest](#)

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Goal & Problem Statement

- Goal is not to expose new information via YANG but rather to define what needs to be kept as metadata (or Data Manifest) to ensure that the data can still be interpreted correctly even:
 - if the source device is not accessible (from the collection system)
 - If the source device has been updated or has a new configuration
- End goal: analyze the data, from the data collection system, with the proper context, for anomaly detection and, in the end, closed loop automation
- Per-node capability discovery exists
 - YANG Modules describing Capabilities for Systems and Datastore Update Notifications, [RFC9196](#) + YANG Instance Data File Format, [RFC9195](#)
 - Per-Node Capabilities for Optimum Operational Data Collection , [draft-claise-netconf-metadata-forcollection-03](#)
- But how were data actually metered, under which circumstances?

Proposal: Data Manifest

- Data Manifest composed of 2 YANG models for storing the context:
 - **Platform Manifest**: part of the Data Manifest that completely characterizes the platform producing the data.
 - **Data Collection Manifest**: part of the Data Manifest that completely characterizes how and when the telemetry was metered.
- “MUST be streamed all with the data and stored along with the collected data.”
- “In case the data are moved to different place (typically a database), the data manifest MUST follow the collected data.”

Changes

- Remove dependency on [draft-jouqui-netmod-yang-full-include](#), rely on YANG Schema Mount
- Link with ongoing inventory and digital map efforts:

The YANG module actually contains a list of Platform Manifests (in 'platforms/platform'), indexed by the identifier of the platform. That identifier should be defined by the network manager so that each platform has a unique id. There are several ongoing drafts about managing the inventory of the network [I-D.ietf-ivy-network-inventory-yang], [I-D.havel-nmop-digital-map] based on [RFC8345]. The platform-id should be the same as the identifier used in these drafts or the node id in [RFC8345]. As an example, the identifier could be the 'sysname' from the ietf-notification module presented in

Open Questions

Closed:

- Handle absence of values or deletion and handling of deletion with draft-kill-yang-label-tsd
 - These points are out of scope for the previous document. Assurance of the collection system could be handled by another mechanism such as SAIN RFC9417
- Interaction with SBOM
 - This document is focusing on the context of the data collection, not a BOM. No interaction seems necessary.
- No remaining Open Issue. Draft seems ready for WGLC

Feedback, suggestions, issues, PRs:

<https://github.com/JeanQuilbeufHuawei/draft-collected-data-manifest>