Telemetry Data Export capability

Draft-tao-netconf-data-export-capabilities-05

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Recap

• Motivations
  ➢ Notification capability model defined in [I-D.netconf-notification-capabilities] allows a client to discover a set of capabilities (transport independent, session level) supported by the server

  ➢ However, some transport specific parameters are lacked. e.g. transport protocol, encoding format, encryption

• Goals
  To augment system Capabilities model and provides additional data export attributes for transport dependent capability negotiation
Document status

• There were a lot of discussion on capability fetching mechanism which is related to this draft and https-notif draft
  • Thanks to Kent Watsen, Mahesh Jethanandani, Alex Huang Feng, Rob Wilton for their comments and suggestions.

• The latest update of draft-tao-netconf-data-export-capabilities is v-(05), changes compared to previous versions:
  • Revise abstract and introduction section to only focus on server capability fetching mechanism
  • Move message-bundling-support parameter to system capabilities level
  • Change encoding format from leaf to leaf-list and support multiple encoding formats for the same transport specific notif
  • Change per-node-capabilities related parameters into empty type
  • Update Usage Example of interaction with HTTP notif and UDP notif for configured subscription
Capability-fetching mechanisms discussion

Open Issue: Whether the notif-drafts (e.g., http-notif, udp-notif) should define their own capability-fetching mechanism, or use the mechanism defined by the data-export-capabilities draft?

Receiver-side capabilities discovery defined in https-notif

- A publisher issues an HTTPs GET request to learn the capabilities of a receiver
- Does not assume that the receiver is a NC/RC server
- Lightweight receiver-side HTTP response through a YANG-modeled format

server capabilities discovery defined in data-export-capabilities

- Introduces a common data model for various transport specific notif (e.g., udp-notif)
- Focuses on server capabilities discovery
- Extends a number of rich capabilities (which are all optional and will not incur unnecessary overhead)
  - For some capabilities, we define them as empty type
Usage Example and YANG Model Change Overview

OLD

<rpc message-id="101" xmlns="...">
  <get>
    <filter type="subtree">
      <system-capabilities xmlns="...">
        <data-export-capabilities/>
      </system-capabilities>
    </filter>
  </get>
</rpc>

NEW

<rpc-reply message-id="101" xmlns="...">
  <data>
    <system-capabilities xmlns="...">
      <data-export-capabilities>
        <transport-protocol>http-notif</transport-protocol>
        <encoding-format>json</encoding-format>
      </data-export-capabilities>
      <data-export-capabilities>
        <transport-protocol>udp-notif</transport-protocol>
        <encoding-format>binary</encoding-format>
      </data-export-capabilities>
    </system-capabilities>
  </data>
</rpc-reply>
Follow Up

• **Agreement**: Should focus on common data model rather than common protocol.

• Address any comments received in the meeting.

• Request adoption call on this document?