

Telemetry Data Export capability

draft-tao-netconf-data-export-capabilities-03

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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

- Second time presented in the IETF 109 meeting, and a few issues were discussed
 - How do we support multiple transport protocols advertisement from the server to the client?
 - Is Inserting hints into error responses described in RFC8639 sufficient?
- The latest update of draft-`tao-netconf-data-export-capabilities` is v-(03), changes compared to previous versions:
 - Change 'data-export-capabilities' into list type to support multiple transport protocol, encoding on the server.
 - Add Usage Example of interaction with UDP based Transport for Configured Subscription.
 - Add Thomas Graf as a contributor;
 - Update motivation in the introduction to clarify why this work is needed.
 - Support `udp` `notif` and `http` `notif` as two optional transport in the YANG data model.

Issue 1: Multiple transport protocol support

- In some cases the server may support multiple transport protocols, how does the server advertise multiple transport protocol support to the client?
 - E.g., Both UDP notif and HTTP notif are supported by the server
- Proposal:
 - Change 'data-export-capabilities' into list type to support multiple transport protocols
 - With these transport protocol capability advertisement, the client know which transport protocol it needs to specify in the establish-subscription rpc or modify-subscription rpc

Issue 2: Inserting hints into error responses

- As described in [section 3.1 of \[RFC8641\]](#), a simple negotiation (i.e., inserting hints into error responses to a failed RPC request) between subscribers and publishers for subscription parameters increases the likelihood of success for subsequent RPC requests, but not guaranteed, which may cause unexpected failure or additional message exchange between client and server.
- Introducing telemetry transport capability advertisement increase likelihood of success for the first RPC request and reduce the number of subscription messages to be exchanged between the client and server but
 - At the cost of introducing advertisement message before NECONF/RESTCONF session is established

Next Step

- Address any comments received in the meeting.
- Request adoption call on this document?