Base Notifications for NMDA

draft-wu-netconf-base-notification-nmda-01

Qin Wu
Rohit R Ranade
Status Recap

• Submitted and presented during IETF 101, London, two issues were raised on this draft
  – the relationship between on change YANG Push and netconf-data-change and
  – what need to be modified in RFC6470 to support NMDA
• After IETF 101, London, a few discussion to address the above issues:
  – Thanks Carey, Timothy, Andy Berman and Rohit R Ranade to provide input and feedback
  – Discussed RFC6470bis vs New draft on NMDA base event support and reached agreement
  – Discussed what need to be defined to support NMDA and remove netconf-data-change to address overlapping with YANG push

• Changes since -01
  – Provide an example for nmda-data-validation notification.
  – Remove dependency on ietf-netconf-notifications
  – Introduce Rohit R Ranade as a new coauthor.
  – Some other editorial changes.
Use cases for NMDA Data Validation

Problem Statement

- There are many background activities that happen during the time that configuration is committed to <running> to the time that the configuration is actually applied from <intended> to <operational>.

- It is possible that some configuration could not be applied from <intended> due to either validation issues, or missing resource etc.

- There is a need for user to know the validation result of <intended> data-store and the reason why the configuration were not applied.

Example use cases

- Identify all the failed objects defined in the model when the data validation fail
Solution for NMDA Data Validation

• Introduce one additional common system event nmda-data-validate pertaining to NMDA

  nmda-data-validate: Generated when a server with network management protocol support detects that a data validation event has occurred from the time that configuration is committed to <running> to the time that the configuration is actually applied to <operational> during management session. Indicates the event and the current state of the data validation.

• Inherit common-session-parms from NETCONF base event model defined in RFC6470.

• Allow clients get access to this notification via either the subscription mechanism described in [RFC5277] or dynamic subscription mechanism and configured subscription mechanism described in [I-D.ietf-netconf-netconf-event-notifications].

• Allow the server report events for non-NETCONF management sessions (such as RESTCONF,gPRC), using the 'session-id' value of zero.
How NMDA Data Validation works

Example of a nmda-data-validation notification message is:

```xml
<notification xmlns="urn:ietf:params:xml:ns:netconf:notification:1.0">
  <eventTime>2017-06-16T16:30:59.137045+09:00</eventTime>
    <username>admin</username>
    <session-id>0</session-id>
    <source-host>10.251.93.83</source-host>
    <validate-event>start</validate-event>
    <validate-result>partial-fail</validate-result>
    <validate-fail-targets>
      <datastore>intended</datastore>
      <target>/ietf-interfaces:interfaces-state</target>
    </validate-fail-targets>
    <validate-fail-targets>
      <datastore>intended</datastore>
      <target>/ietf-system:system</target>
    </validate-fail-targets>
  </nmda-data-validate>
</notification>
```
Next Step

- Two open issues in last meeting have been resolved.
- Request to accept draft as WG item
  - Got already supporter on the list