NMDA Base Notification for Applied Intended Configuration

draft-wu-netmod-base-notification-nmda-01

Qin Wu
Rohit R Ranade
Feng Chong
Update Since IETF 103

• This draft defines 1 NMDA specific notification for additional common system events.
  – Track some configurations that could not be applied to <operational> due to either validation issues, or missing resource etc
  – Help user to know the applying result of <intended> data-store and the reason why the configuration were not applied.

• Move from netconf to netmod before IETF 103 and replace draft-wu-netconf-base-notification-nmda-02
  – Can work together with NMDA diff based on NETCONF discussion

• Presented in netmod session of IETF 103 and got a few feedback from netmod session and mailing list
  – Validation errors cause an error response to the commit RPC.
    • Do We need to use Username in the notification? Clarification: Yes, it is used to identify management session.
  – <intended> MUST be valid config data tree and is usually immediately updated and validated when data is written into <running>.

• Changes since previous version
  – Add module tag support and use additional parameters to identify management session.
  – Remove apply-intended-start and apply-intended-end two notifications since they are not needed based on discussion.
notifications:

```text
  --- n apply-intended-updated
    +--ro username string
    +--ro session-id session-id-or-zero-type
    +--ro app-tag? tags:tag
    +--ro source-host? inet:ip-address
    +--ro commit-persist-id? string
    +--ro datastore? identityref
    +--ro (filter-spec)?
      | +--:(subtree-filter)
      |      | +--ro subtree-filter? <anydata>
      | +--:(xpath-filter)
      |      +--ro xpath-filter? yang:xpath1.0 {nc:xpath}?
    +--ro apply-result? enumeration
    +--ro fail-applied-target* [edit-id]
      +--ro edit-id string
      +--ro operation enumeration
      +--ro target? ypatch:target-resource-offset
      +--ro value? <anydata>
    +--ro errors
      +--ro error* []
        +--ro error-type enumeration
        +--ro error-tag string
        +--ro error-app-tag? string
        +--ro error-path? instance-identifier
        +--ro error-message? string
        +--ro error-info? <anydata>
```

**Relation with NMDA diff:**
NMDA Diff is used to check which part of intended configuration data is applied or which part of intended configuration data is not applied.

**Use additional tag to identify NETCONF session besides source host, session id**

**Report complete status using errors grouping defined in ietf-restconf module**
Datastore workflow

At boot time

Every time when the “running” datastore has been altered

Configuration transformation

The sequence of Event Notifications

netconf-session-start (RFC6470)
netconf-confirmed-commit (RFC6470)
netconf-config-change (RFC6470)
netconf-capability-change (RFC6470)

Commit <ok> or <rpc-error>

Report event related to Protocol operation

nmda-intended-applied (This draft)
Next Step

• Request to accept draft as WG item