Support of **Versioning** in YANG Notifications Subscription
draft-ietf-netconf-yang-notifications-versioning-05

Adds semantics to the subscription process and notification message to enable automated data mesh integration.
Support of **Versioning** in YANG Notifications Subscription

For subscription state change notification messages

```yaml
module: ietf-yang-push-revision
  augment /sn:establish-subscription/sn:input:
    +---w module-version-config* [module-name]
        +----w module-name yang:yang-identifier
        +----w revision? rev:revision-date-or-label
        +----w revision-label? ysver:version
  augment /sn:subscription-started:
    +--ro module-version* [module-name]
        +--ro module-name yang:yang-identifier
        +--ro revision rev:revision-date-or-label
        +--ro revision-label? ysver:version

```

- Network operators need to control semantics in its data processing pipeline. That includes YANG-Push.
- This is today only possible during YANG-Push subscription but not when nodes are being upgraded or when messages are being published for configured subscription.
- **draft-ietf-netconf-yang-notifications-versioning** extends the YANG push subscription and publishing mechanism defined in RFC 8641:
  - By adding the ability to subscribe to a specific revision or latest-compatible-semversion of one or more YANG modules.
  - By extending the YANG push Subscription State Change Notifications Message so that the YANG push receiver learns beside the xpath and the subtree filter also the yang module name, revision and revision-label.
Support of **Versioning** in YANG Notifications Subscription
draft-ietf-netconf-yang-notifications-versioning-04 - Status and Next Steps

**Current Status**

- Resolved issue that within a "case" statement identifiers need to be unique.
- Thanks to Jérémie Leska from 6Wind for reporting this issue.

**Next Steps**

- Validate implementation at IETF 120 hackathon.
- Requesting feedback from the netconf working group and YANG-Push implementers.
## YANG-Push Implementation Status

### IETF 120

<table>
<thead>
<tr>
<th>Specification</th>
<th>6WIND VSR</th>
<th>Huawei VRP</th>
<th>Cisco IOS XR</th>
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</thead>
<tbody>
<tr>
<td>RFC 8639 YANG-Push Subscription</td>
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<td>RFC 8641 YANG-Push Notification</td>
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<td>RFC 8525 YANG Library</td>
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<td>draft-lincla-netconf-yang-library-augmentation</td>
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</tbody>
</table>
Address YANG Specification and Integration Gaps
Aiming for an automated data processing pipeline

YANG Specifications Gaps:

• YANG model for NETCONF Event Notifications
draft-ahuang-netconf-notif-yang

• Validating anydata in YANG Library context
draft-aelhassany-anydata-validation

YANG Integration Gaps:

• Support of Network Observation Timestamping in YANG Notifications
draft-tgraf-netconf-yang-push-observation-time

• Support of Hostname and Sequencing in YANG Notifications
draft-tgraf-netconf-notif-sequencing

• Support of Versioning in YANG Notifications Subscription
draft-ietf-netconf-yang-notifications-versioning

• Augmented-by Addition into the IETF-YANG-Library
draft-lincla-netconf-yang-library-augmentation

« Addressing those gaps are a prerequisite to enable an automated data processing chain as described in draft-ietf-nmop-yang-message-broker-integration. Please consider to attend IETF 120 NMOP working group session on Friday 13:00 – 15:00 or go onto the mailing list and contribute to the discussion. »