Support of **Hostname and Sequencing** in YANG Notifications
draft-tgraf-netconf-notif-sequencing-06

Adds sysName and sequenceNumber to identify from where the message was exported from
Extend Netconf Notifications with Hostname and Sequence Number
For push-update and push-change-update

- When NETCONF event notification messages are forwarded from a YANG push receiver to another system, a message broker or a time series database where the messages are stored, the transport context is lost since it is not part of the NETCONF event notification message metadata. Therefore, the downstream system is unable to associate the message to the publishing process (the exporting router), nor able to detect message loss or reordering.

- draft-tgraf-netconf-notif-sequencing extends the NETCONF notification defined in RFC5277 with:
  - **sysName**: Describes the hostname following the 'sysName' object definition in RFC 1213 from where the message was published from.
  - **sequenceNumber**: Generates a unique sequence number as described in RFC 9187 for each published message.
Extend Netconf Notifications with Hostname and Sequence Number
draft-tgraf-netconf-notif-sequencing-06 - Status and Next Steps

Current Status

• Addresses feedback at NMOP that notification changes should be discoverable.
  • Section 2.1 describes new netconf notification with hostname and sequence capability.
    urn:ietf:params:netconf:capability:notification:sysname-sequence:1.0
  • Section 2.2 describes new YANG-related system capabilities. Netconf notification with hostname and sequence capability is now discoverable through extended YANG-related system capabilities defined in RFC 9196.
• Minor editorial changes and implementation status section added.

Next Steps

➤ Requesting feedback from the netconf working group and YANG-Push implementers.
# YANG-Push Implementation Status

IETF 120

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<th>6WIND VSR</th>
<th>Huawei VRP</th>
<th>Cisco IOS XR</th>
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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. »