



YANG-PUSH NOTIFICATION CAPABILITIES

Balazs Lengyel, Alex Clemm

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[draft-ietf-netconf-notification-capabilities-01](#)

HISTORY

- › Draft dormant to let other important work finish first
 - chairs request
- › Restarted now that Yang-Push is in the IESG's hands

THE PROBLEM

A CONTRACT – “MAYBE”

- › Publishers generally supporting on-change notifications will not always be able to push on-change updates for some object types
 - Frequent change (inOctets counter)
 - Meaningless small change (temperature changing 0.1 degrees)
 - Not implemented
 - Resource limitation (missing HW)
 - Small constrained network node
- › Support for on-change does not mean that notifications are sent for any specific object

YANG MODEL

- › Document notification capabilities
- › Yang module ietf-notification-capabilities
 - On-change capability per data node (yes or no)
 - › Practically 2 top level default values + a few exceptions for specific data nodes
 - › Inherited down the data tree
 - Other capacity related capabilities
- Capabilities readable via Netconf/Restconf
- Capabilities available off-line as Yang Instance data

module: ietf-notification-capabilities

```
+--ro yangpush-notification-capabilities
  +--ro minimum-dampening-period?      uint32
  +--ro (update-period)?
  | +--:(minimum-update-period)
  | | +--ro minimum-update-period?      uint32
  | +--:(supported-update-period)
  |   +--ro supported-update-period*    uint32
  +--ro max-objects-per-update?        uint32
  |
  +--ro notification-sent-for-config-default?  boolean
  +--ro notification-sent-for-state-default?   boolean
  +--ro on-change-notification-capability* [node-selector]
    +--ro node-selector                  nacm:node-instance-identifier
    +--ro on-change-notification-sent    boolean
```

EXAMPLE CAPABILITIES

Blue items send on-change notifications

module: ietf-interfaces

```
+--rw interfaces
  +--rw interface* [name]
    +--rw name          string
    +--rw type          identityref
    +--rw enabled?     boolean
    +--ro oper-status   enumeration
    +--ro statistics
      +--ro in-octets?   counter64
      +--ro in-broadcast-pkts? counter64
      +--ro in-multicast-pkts? counter64
      +--ro out-octets?  counter64
```

yangpush-notification-capabilities

notification-sent-for-config-default = true (by default)

notification-sent-for-state-default = true

/interfaces/interface/statistics :

on-change-notification-sent = false

/interfaces/interface/statistics/out-octets :

/interfaces/interface/statistics/in-octets :

on-change-notification-sent = true

CHANGES 00 - 01

- › Added more capabilities – capacity related
 - not just for on-change method
- › General
 - max-number of objects per update
- › Periodic subscriptions
 - minimum update period
 - supported update period values
- › On-Change subscriptions
 - minimum dampening period,

OPEN ISSUES

- › Shall we specify on-change capabilities separately for each datastore?