UDP-based Transport for Configured Subscriptions
draft-ietf-netconf-udp-notif-13/14

UDP-based protocol for YANG notifications to collect YANG data from networking devices

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UDP-based Transport for Configured Subscriptions
Changes in -13/-14 and next steps

• ietf-udp-notif-transport.yang is using now the generic UDP client groupings from
  draft-ietf-netconf-udp-client-server.
  • A node is now capable of sending UDP-notif notifications to a inet:host rather than only to
    inet:ip-address-no-zone and is able to set its local address.
• Since draft-ietf-netconf-udp-client-server specifies the Layer 4 port as default, Section 8.4 has been added
  to request IANA for a default port. → Rollbacked to mandatory port as requested by Med
  • Thanks Med for the feedback!
• No pending items. All working group comments are addressed.

Next Steps
➢ Requesting working group last call.
UDP-based Transport for Configured Subscriptions

YANG module for UDP-notif configuration

module: ietf-udp-notif-transport

augment /sn:nsubscriptions/snr:receiver-instances
  /snr:receiver-instance/snr:transport-type:
  +--rw udp-notif-receiver
    +--rw remote-address inet:host
    +--rw remote-port inet:port-number
    +--rw local-address? inet:ip-address
      +--(local-binding-supported)?
        +--rw local-port? inet:port-number
    +--rw dttl? (datatime)
      +--rw client-identity!
        +--rw [auth-type]
          +--:(certificate) {client-ident-x509-cert}?
            +--:(raw-public-key)
              +--:(raw-public-key)
                +--:(tls13-epsk) {client-ident-tls13-epsk}?
                  ...
        +--rw server-authentication
          +--rw ca-certs! {server-auth-x509-cert}?
            +--rw [inline-or-truststore]
              ...
          +--rw ee-certs! {server-auth-x509-cert}?
            +--rw [inline-or-truststore]
              ...
          +--rw raw-public-keys! {server-auth-raw-public-key}?
            +--rw [inline-or-truststore]
              ...
          +--rw tls13-epsk? empty
            {server-auth-tls13-epsk}?
          +--rw hello-params {tlscm:hello-params}?
            +--rw tls-versions
              +--rw min? identityref
              +--rw max? identityref
            +--rw cipher-suites
              +--rw cipher-suite
                +--tlscasl:tls-cipher-suite-algorithm
          +--rw keepalive! {tlscasl:keepalive}?
            +--rw peer-allowed-to-send? empty
            +--rw test-peer-aliveness!
              +--rw max-wait? uint16
              +--rw max-attempts? uint8
            +--rw enable-segmentation? boolean {segmentation}?
            +--rw max-segment-size? uint32 {segmentation}?
YANG Groupings for UDP Clients and UDP Servers
draft-ietf-netconf-udp-client-server-03/04

Two YANG 1.1 modules
to support the configuration of UDP clients and UDP servers

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YANG Groupings for UDP Clients and UDP Servers
Changes on -03 and -04

OLD

module: ietf-udp-client

  grouping udp-client-grouping:
    +- remote-address    inet:ip-address-no-zone
    +- remote-port?      inet:port-number

module: ietf-udp-server

  grouping udp-server-grouping:
    +- local-address      inet:ip-address-no-zone
    +- local-port?        inet:port-number

NEW

module: ietf-udp-client

  grouping udp-client-grouping:
    +- remote-address    inet:host
    +- remote-port?      inet:port-number
    +- local-address?    inet:ip-address {local-binding-supported}?
    +- local-port?       inet:port-number {local-binding-supported}?

module: ietf-udp-server

  grouping udp-server-grouping:
    +- local-bind*        [local-address]
    +- local-address      inet:ip-address
    +- local-port?        inet:port-number
YANG Groupings for UDP Clients and UDP Servers
Changes and Next steps

Changes in -03/-04

• UDP groupings mimick the tcp client-server groupings defined in draft-ietf-netconf-tcp-client-server according to the WG feedback from IETF 119.
• Added examples how the groupings can be applied.
• Removed Default port “0” to allow more flexibility as requested from Med.
  • Many thanks for the review!
• All comments are addressed

Next Steps
➢ Requesting working group last call.
Subscription to **Distributed Notifications**
draft-ietf-netconf-distributed-notif-09

Extends YANG notification subscription to allow metrics being published directly from processors on line cards

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Subscription to Distributed Notifications
Changes and Next steps

Changes in -09

• Updated implementation status section.
• Same as for subscription state change, push-update and push-change-update are now augmented with message-publisher-id as well.
• Message-publisher-id augmentation is therefore removed in draft-tgraf-netconf-notif-sequencing-06.
  • Leads to one document describing the augments for message-publisher-id.
• No pending items. All working group comments are addressed.

Next Steps

➢ Requesting working group last call.
Subscription to Distributed Notifications

YANG module

```yang
module: ietf-distributed-notif

augment /sn:subscriptions/sn:subscription:
    +--ro message-publisher-ids*  uint32
augment /sn:subscription-started:
    +--ro message-publisher-ids*  uint32
augment /sn:subscription-modified:
    +--ro message-publisher-ids*  uint32
augment /sn:establish-subscription/sn:output:
    +--ro message-publisher-ids*  uint32
augment /yp:push-update:
    +--ro message-publisher-id?  uint32
augment /yp:push-change-update:
    +--ro message-publisher-id?  uint32
```