

UDP-based Transport for **Configured Subscriptions**

draft-ietf-netconf-udp-notif-13

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

G. Zheng, Huawei

T. Zhou, Huawei

T. Graf, Swisscom

P. Francois, INSA-Lyon

A. Huang Feng, INSA-Lyon

Paolo Lucente, NTT

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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:subscriptions/snr:receiver-instances
  /snr:receiver-instance/snr:transport-type:
    +--:(udp-notif)
      +--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
        | {local-binding-supported}?
        +--rw dtls! {dtls13}?
          +--rw client-identity!
            +--rw (auth-type)
              +--:(certificate) {client-ident-x509-cert}?
              | ...
              +--:(raw-public-key)
                {client-ident-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-epsks? empty
              {server-auth-tls13-epsk}?
          +--rw hello-params {tlscmn:hello-params}?
            +--rw tls-versions
              | +--rw min? identityref
              | +--rw max? identityref
            +--rw cipher-suites
              +--rw cipher-suite*
                tlscsa:tls-cipher-suite-algorithm
            +--rw keepalives {tls-client-keepalives}?
              +--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

A. Huang Feng, INSA-Lyon
P. Francois, INSA-Lyon
K. Watsen, Watsen Networks

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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 mimic 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

zhoutianran@huawei.com
zhengguangying@huawei.com
evoit@cisco.com
thomas.graf@swisscom.com
pierre.francois@insa-lyon.fr

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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

```
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
```

