

# YANG Groupings for QUIC clients and QUIC servers

draft-andersson-netconf-quic-client-server-01

**IETF 121 NETCONF WG 2024-11-08**

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# Intro

- Defining reusable YANG groupings for the QUIC protocol
- Reusing tls-client-server and udp-client-server
- Adding transport parameters
- Augment netconf-client-server with QUIC transport

# Solution overview

- Use TLS and UDP groupings
- Require TLS 1.3
  - if-feature “tlscmn:tls13 not tlscmn:tls12”
- Add QUIC transport parameters
  - Not in current draft yet, changes in git

# Common YANG model

name: ietf-quic-common

namespace: urn:ietf:params:xml:ns:yang:ietf-quic-common

prefix: quiccmn

# quiccmn:transport-parameters

version

initial\_rtt

congestion-control-algorithm

max-idle-timeout

initial-max-streams-bidi

initial-max-streams-uni

keep-alive-interval

# ietf-quic-client

grouping quic-client:

```
+---u tlsc:tls-client-grouping  
|      {tlscmn:tls13 and not tlscmn:tls12}?  
+---u udpc:udp-client  
+---u quiccmn:transport-parameters
```

# ietf-quic-server

grouping quic-server:

```
+---u tlss:tls-server-grouping
```

```
|      {tlscmn:tls13 and not tlscmn:tls12}?
```

```
+---u udps:udp-server
```

```
+---u quiccmn:transport-parameters
```

# Comparison

## http-client-server

grouping http-server-stack-grouping:

+-- (transport)

+--:(quic) {quic-supported}?

+-- quic

+-- udp-server-parameters

| +---u udps:udp-server-grouping

+-- tls-server-parameters

| +---u tlss:tls-server-grouping

+-- http-server-parameters

+---u http-server-grouping

## quic-client-server

grouping quic-server:

+---u tlss:tls-server-grouping

| {tlscmn:tls13 and not tlscmn:tls12}?

+---u udps:udp-server

+---u quiccmn:transport-parameters



# NETCONF over QUIC

- quic-client-server remote augments  
netconf-client-server
  - Maybe move augment to netconf-over-quic?
  - Not obvious to include quic-client-server groupings

# (Still) Open questions

- What other parameters are valuable to add?
- What is the correct level of configuration options exposure?

# Next steps

- More feedback from the WG
- Valuable to update other documents?
- Adopt document

Thank you!

Questions?

# Suggested changes

- Consider updating draft-ietf-netconf-udp-client-server
  - Reusable UDP+(D)TLS groupings
  - Define dtls1.2/1.3/quic features
- Arrange the DTLS container in draft-ietf-netconf-udp-notif
  - Use groupings in draft-ietf-netconf-udp-client-server