

# YANG Groupings for QUIC clients and QUIC servers

draft-ietf-netconf-quic-client-server-03

IETF 124 NETCONF WG 2025-11-03

Per Andersson <per.ietf@ionio.se>



**I E T F**<sup>®</sup>

# Intro

- Defining reusable YANG groupings for the QUIC protocol
- Reusing tls-client-server and udp-client-server
- Adding IANA YANG modules for quic-versions and quic-transport parameters
- Used by draft-ietf-netconf-over-quic

# Updates

- Refined initial IANA YANG modules
  - quic-versions
  - quic-transport
- Registry values encoded as enums
- Add references
- Editorial fixes
- Will need update IANA Considerations

# iana-quir-versions (no change)

```
typedef quic-version {  
    type enumeration {  
        enum 0x00000000 { ... }  
        enum 0x00000001 { ... }  
        ...  
        enum 0x709a50c4 { ... }  
    }  
}
```

```
typedef version {  
    type quic-version;  
}
```

# iana-quic-versions: issues

- Enum values maybe not able to represent IANA quic-versions values
  - Using “value” limitations
    - range -2147483648 to 2147483647  
(-8000 0000, 7FFF FFFF)
  - Registry value represented as string (enum name)

**NOT USING VALUE:**

**enum identifier (string) contains version value**

# iana-quic-transport

```
typedef quic-transport-parameter {  
    type enumeration {  
        enum original_destination\  
connection_id {  
    description "0x00 (permanent)";  
    reference "RFC 9000";  
    }  
    enum max_idle_timeout {  
        description "0x01 (permanent);  
        reference "RFC 9000";  
    }  
    ...  
}
```

```
typedef transport-parameter {  
    type quic-transport-parameter;  
}
```

# iana-quir-transport: fixed issues

- Value range actually out of scope with current registry contents

**NOT USING VALUES:  
description contains value**

```
enum enable_multipath-06 {  
  value 0x0f739bbc1b666d06;  
  description "(provisional);  
  reference "draft-ietf-quir-multipath-06";  
}
```

```
enum enable_multipath-06 {  
  description "0x0f739bbc1b666d06 (provisional);  
  reference "draft-ietf-quir-multipath-06";  
}
```

# IANA Considerations

- Early IANA review
  - Highlighted that QUIC registry is special (assigned values can change)
- Update IANA Considerations
  - Mention how YANG modules need to be updated when the registry is updated
  - Supply guidance for what YANG Semver to use

# Next steps

- Update IANA Considerations
- WGLC

Thank you!

Questions?

# Common YANG model

name: ietf-quic-common

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

prefix: quiccmn

# ietf-quic-client

grouping quic-client:

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