

**Restconf subscription and HTTP push  
for YANG datastores**  
draft-voit(-netconf)-restconf-yang-push-00

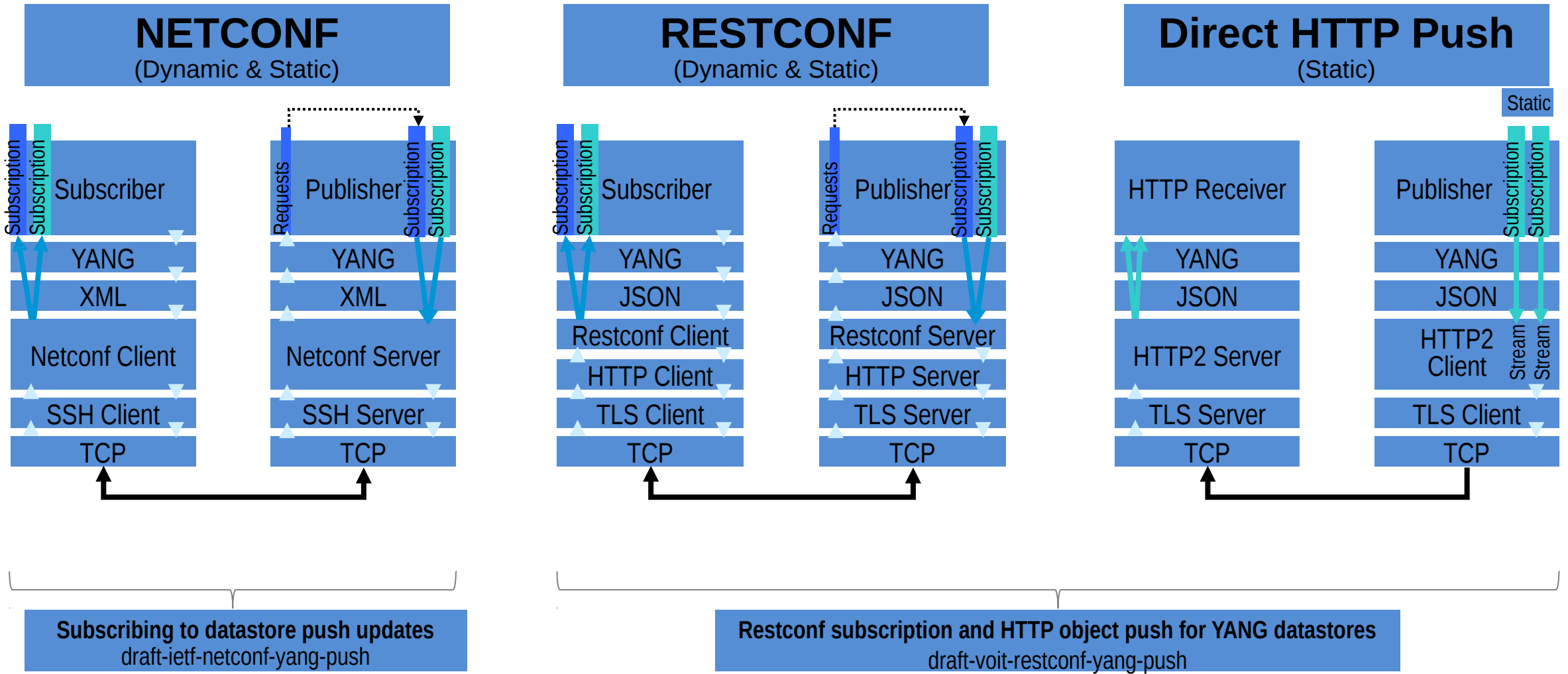
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# Overview

- Extend YANG pub-sub to RESTconf and HTTP/2 transport
- Update delivery: Push messages over HTTP/2
- Subscription control:
  - Allow subscription configuration for new transport
  - Add support for configuration of transport-specific features (QoS, Priorization)

# 3 Subscription Models in 2 drafts



# Why Separate Drafts?

A single complex draft makes the following harder

- Avoids having multiple models for a first-time reader
- Avoids overloading a single draft with multiple options, simplifies conformance
- Doesn't include QoS Augmentation in the base spec
- Sets the stage for modular extensions
  - Additional encodings and transport options (Multicast? QUIC? IPFIX?)
  - Separation of subscriber from receiver (security model implications)
  - Extensions of subscription control model
  - Language & taxonomy for advanced filters and queries (beyond XPath)
  - Multiple receivers

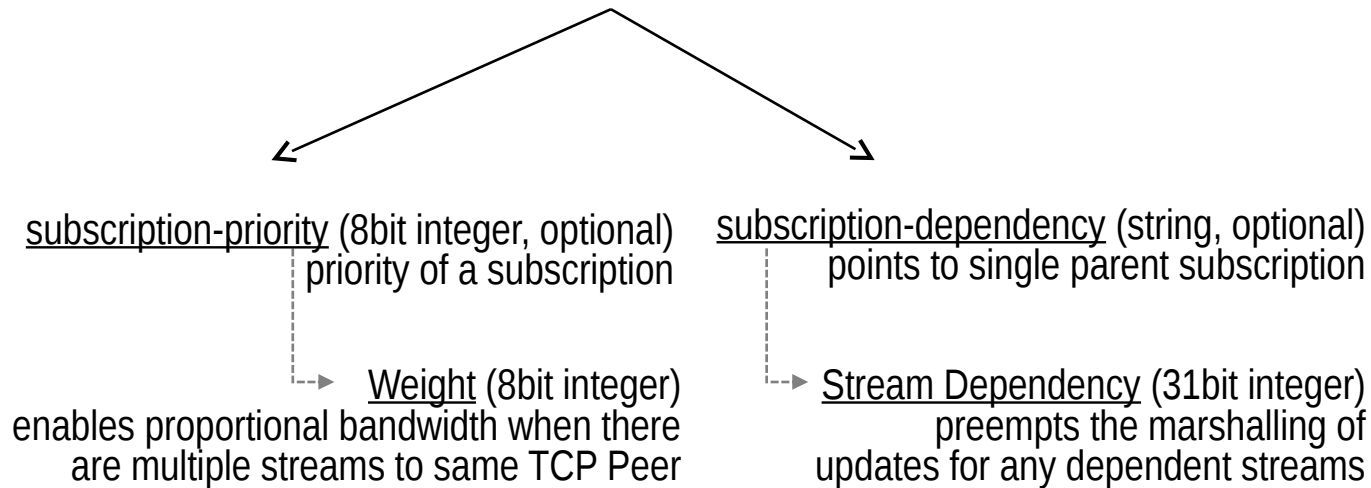
# HTTP/2 Transport QoS

- Multiple subscriptions to one destination = Benefits of HTTP/2
  - Prioritized Subscriptions
  - No Head-of-line blocking from Elephant flows/subscriptions
  - Per-subscription flow control
  - Reduced Latency
- Getting Subscription Flow info → HTTP/2 Stream
  - Straight forward where there is no Restconf
  - Should Restconf support HTTP/2 Streams?

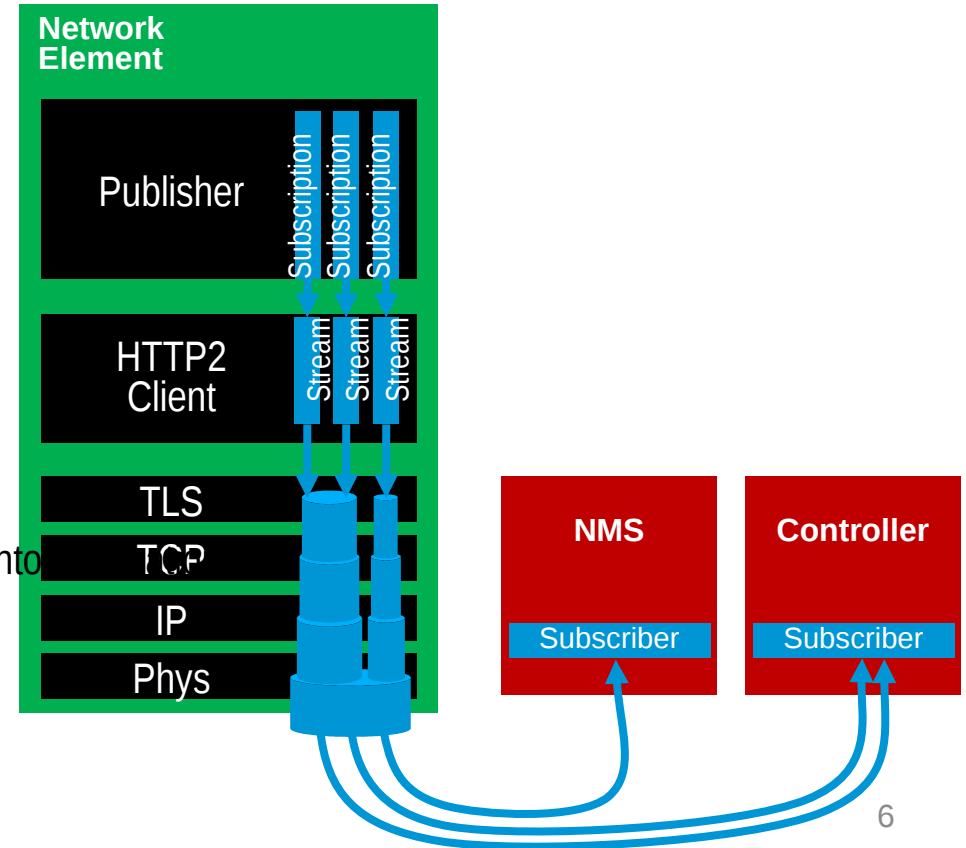
# Draft's QoS Augmentations

Two new YANG objects augment draft-ietf-netconf-yang-push

Purpose: control transport-dependent options available when HTTP/2 transport is selected



(re)Transmit frames at rate consumable into  
Prioritize and rate shape  
Dequeue



# Next Steps

- Input from WG
- Ask: Adopt by WG as companion draft to draft-netconf-yang-push