

IETF 123 - Madrid  
25/07/2025

# Implementation of https-notif & https-notif-cbor draft

## Adding CBOR support to libyang

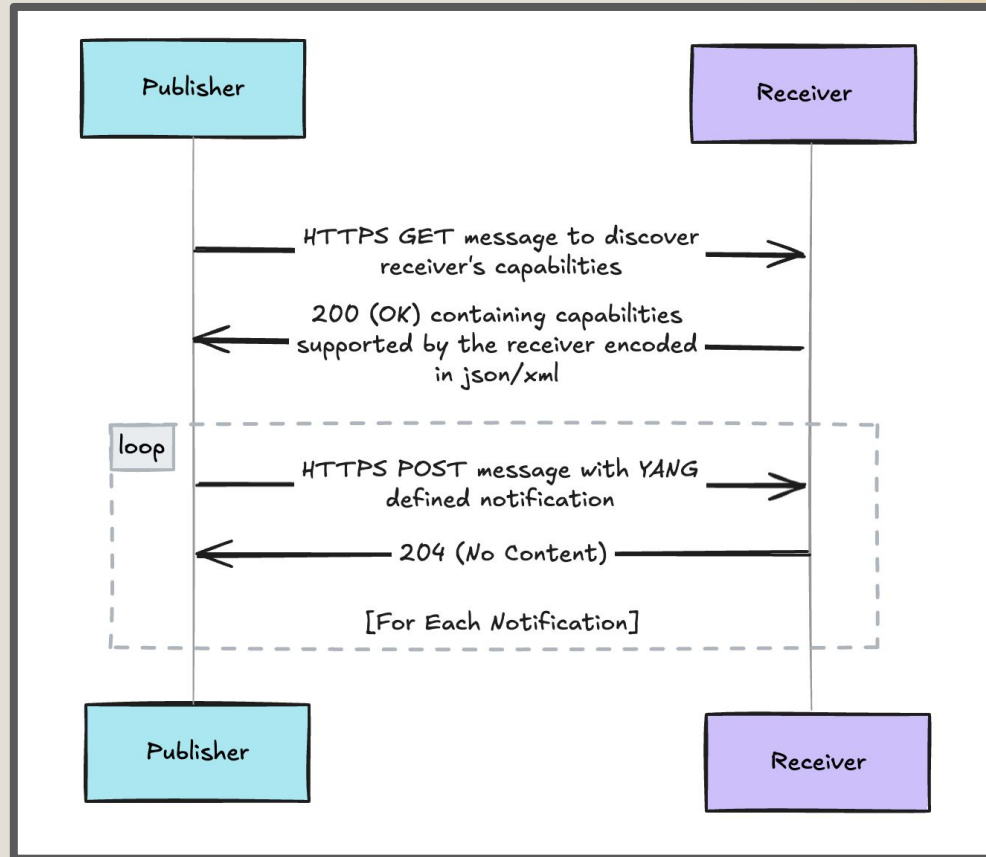
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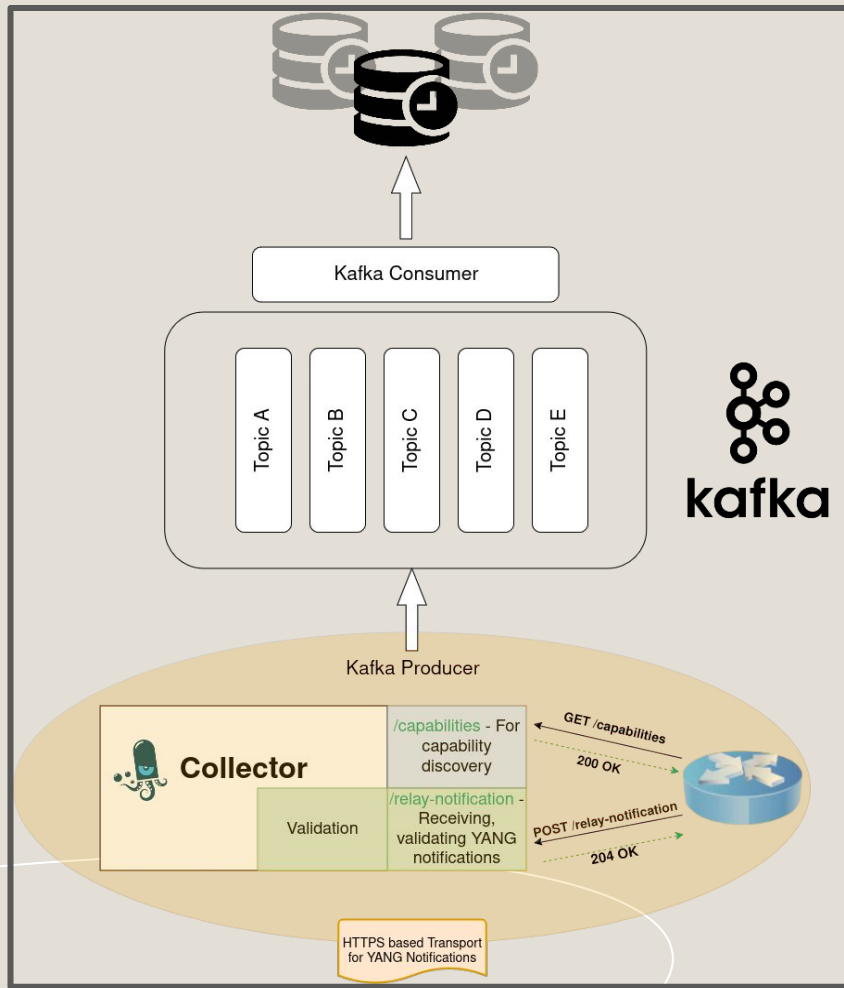
1.  
Context about https-notif and https-notif-cbor draft
2.  
Implementation demo for the drafts
3.  
Context for libyang
4.  
Implementation demo for CBOR support code

# Overview of the https-notif draft



# Implementation Architecture

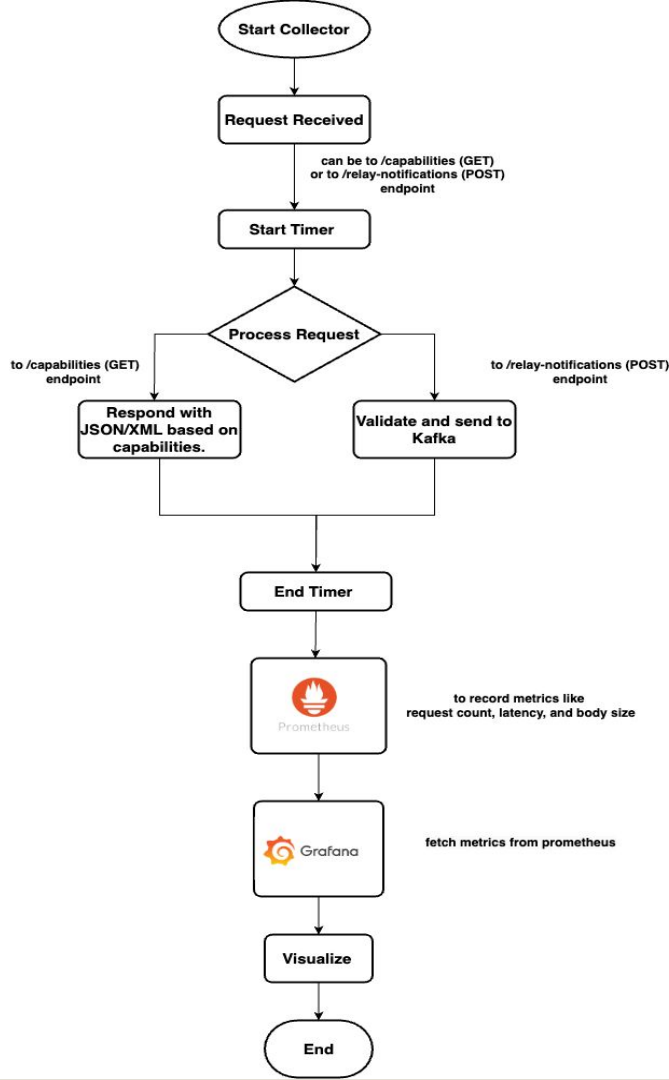
- Collector (receiver) supports /capabilities and /relay-notifications
- Collector receives the relay notification and **publishes the notification data to a designated Kafka topic.**
- A parallel Kafka **consumer** **continuously reads messages from this topic and inserts the data into a Time Series Database** (InfluxDB in our implementation)
- **The entire code is containerized!**



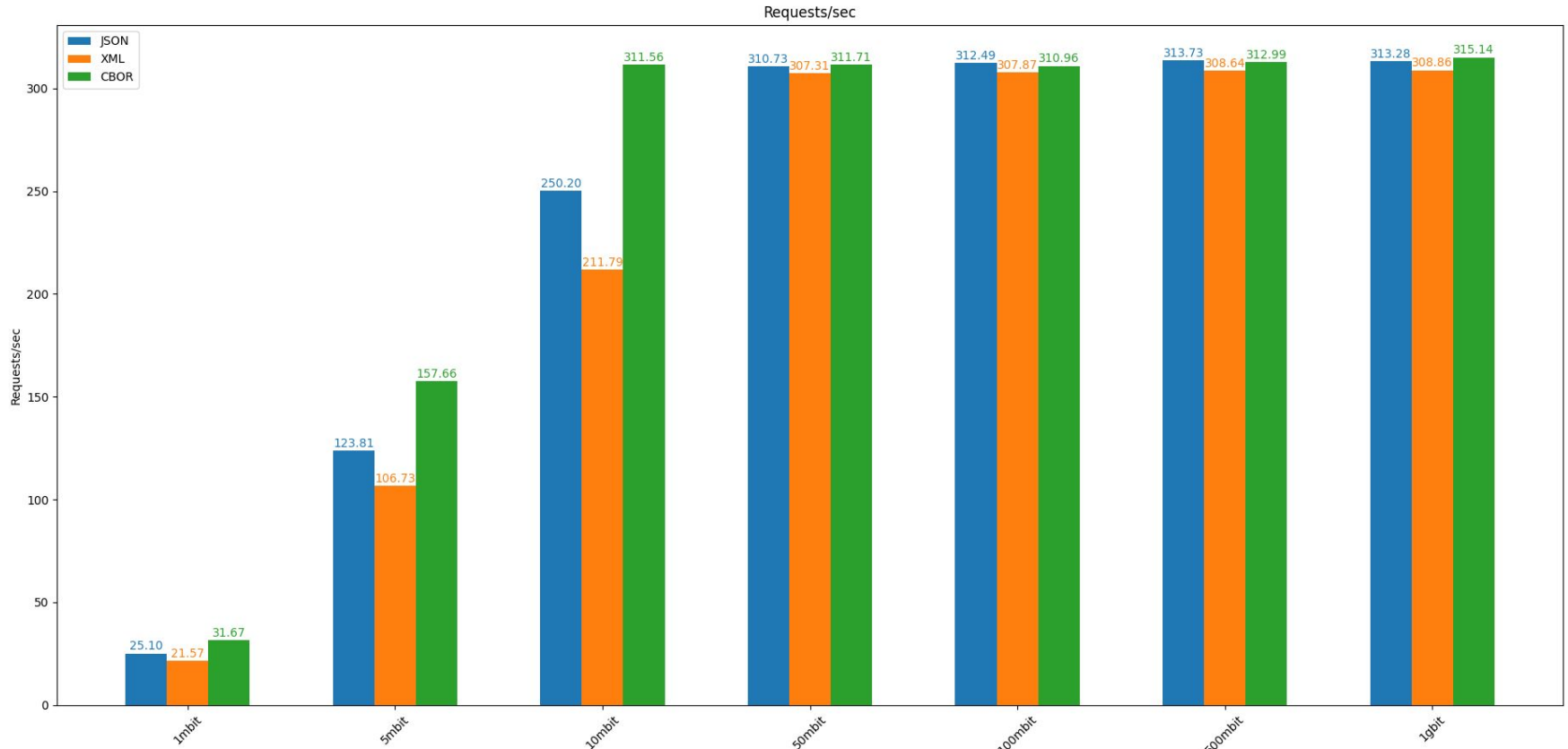
# Monitoring metrics with Prometheus and Grafana

- The application uses Prometheus client libraries to define **metrics such as HTTPS request counts, request latencies and POST request body sizes**.
- Prometheus collects the metrics exposed by the application. Grafana is used to visualize these metrics.

Implementation Link: <https://github.com/MeherRushi/https-notif-draft-impl>

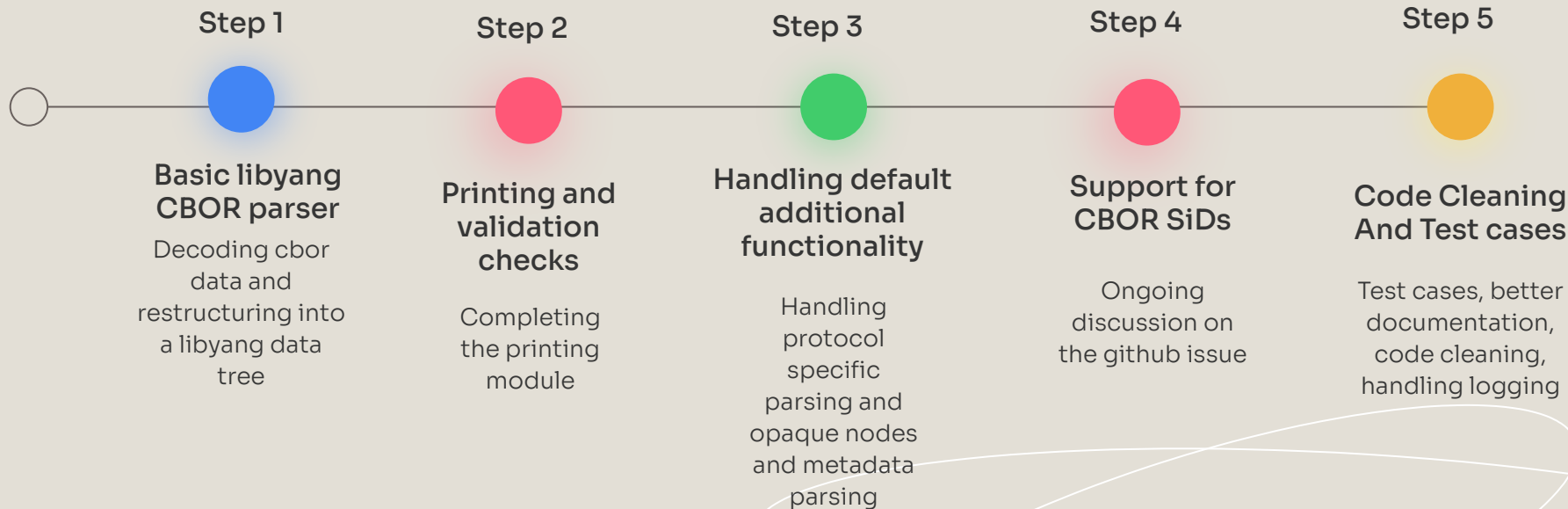


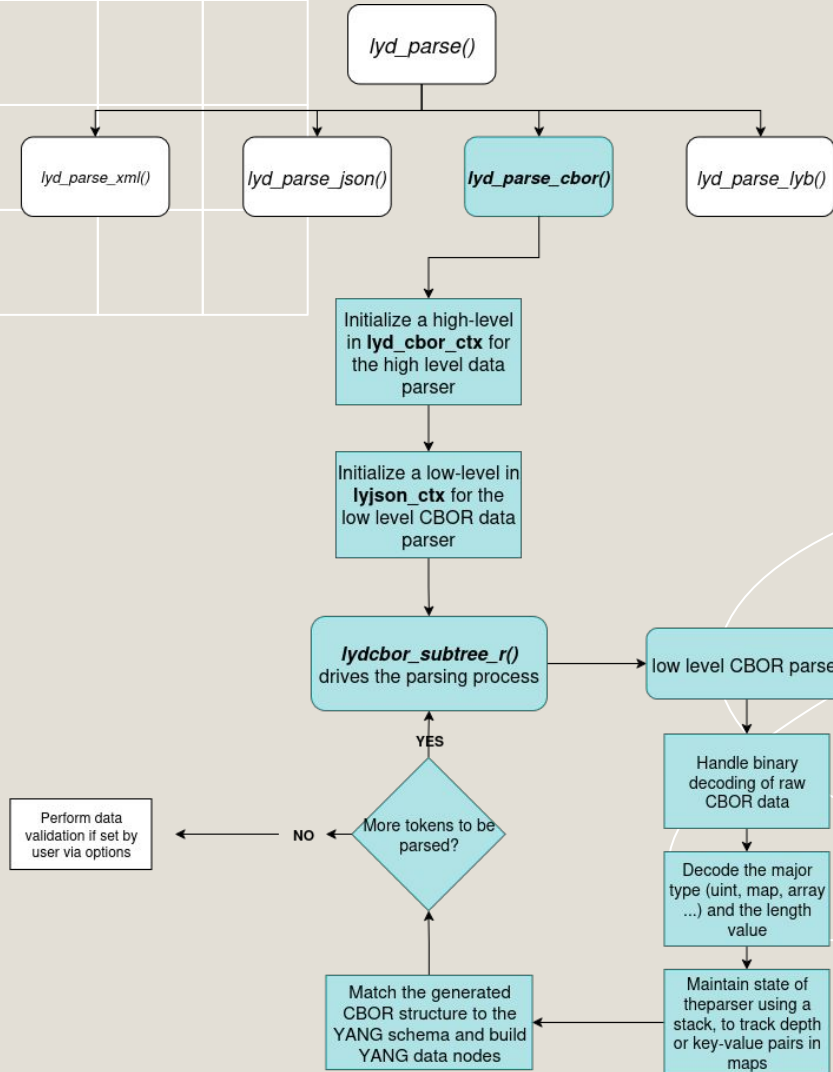
# Performance Analysis of Encoding Formats Under Varying Bandwidth



Req/sec, average measurement of the above experiment

# Adding CBOR support to libyang





# Adding CBOR support to libyang

Implementation Link :

<https://github.com/MeherRushi/libyang/tree/cbor>

[https://github.com/MeherRushi/libyang/tree/sid\\_cbor](https://github.com/MeherRushi/libyang/tree/sid_cbor)



# Links

## https-notif draft & https-notif-cbor

Link to https-notif draft:

<https://datatracker.ietf.org/doc/draft-ietf-netconf-https-notif/>

Link to https-notif-cbor draft:

<https://datatracker.ietf.org/doc/draft-chittapragada-netconf-https-notif-cbor/>

Implementation Link:

<https://github.com/MeherRushi/https-notif-draft-impl>

## Adding CBOR support to libyang

Github Issue :

<https://github.com/CESNET/libyang/issues/2130>

Current Implementation:

<https://github.com/MeherRushi/libyang/tree/cbor>

[https://github.com/MeherRushi/libyang/tree/sid\\_cbor](https://github.com/MeherRushi/libyang/tree/sid_cbor)

# Any questions?



# Thank you

Special Thanks to Mohit P Tahiliani,  
Mahesh & Kent (<https-notif> draft authors) and  
Thomas Graf, Alex Huang & team for their constant  
guidance and support throughout.