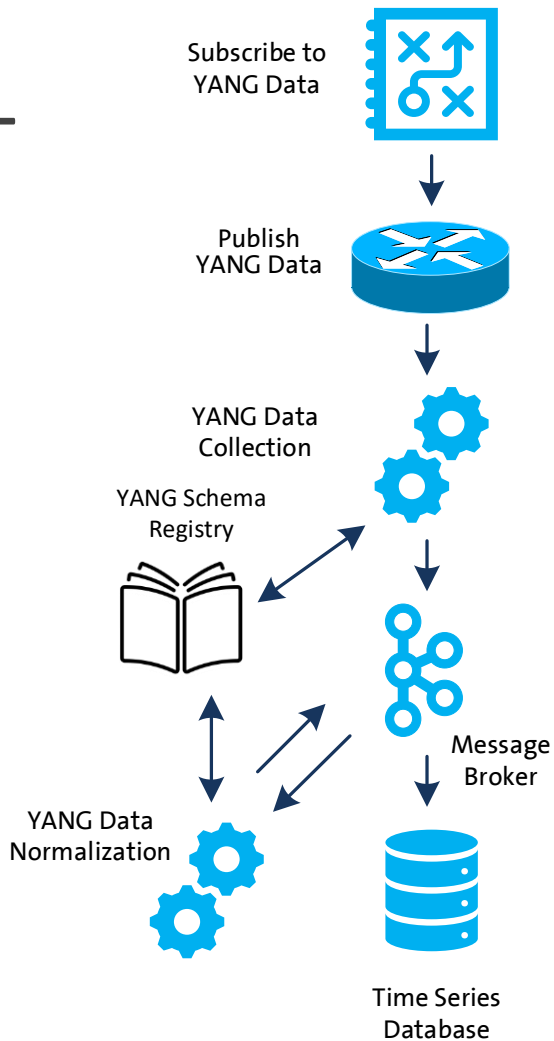


Validate Configured Subscription YANG-Push Publisher Implementations

IETF 123 Hackathon, July 19-20th 2025



Hackathon Plan, Software and Website

Test Plan

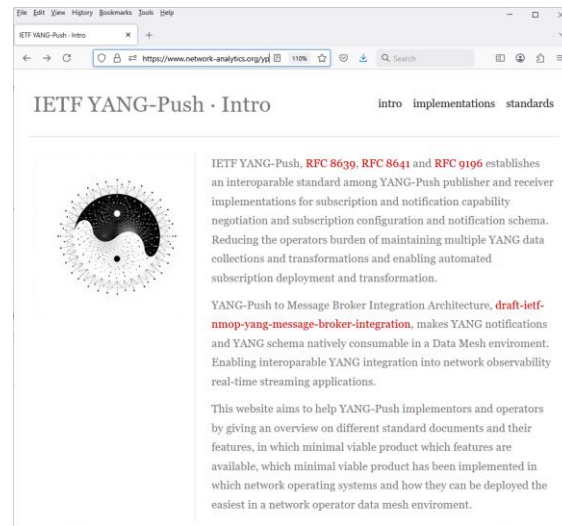
- **Subscription automation**
 - Discover YANG-Push systems and notifications capabilities and configure periodical and on-change subscriptions with netconf.
- **Notification integration**
 - Validate subscription state change and push-update and push-change-update notifications against schema with yanglint
 - Validate [draft-ietf-nmop-message-broker-telemetry-message](#) for [draft-ietf-nmop-yang-message-broker-integration](#) integration

Development Plan

- MVP 1 – Basic Requirements (9)
- MVP 2 – Scale and Secure (3)
- MVP 3 – Optimizations (2)

Software

- YANG-Push Publisher - Cisco IOS XR
- YANG-Push Publisher - 6WIND VSR
- YANG-Push Publisher - Huawei NE (Router) and MA (OLT)
- YANG-Push Receiver – Netgauze
- udp-notif dissector - Wireshark



<https://www.network-analytics.org/yp/how-to-deploy.html>

Hackathon – Repositories

Test Result Repository

- <https://github.com/network-analytics/ietf-network-analytics-document-status/tree/main/123/Hackathon>
 - Packet capture on the wire
 - Netconf RPCs and YANG-Push JSON and CBOR encoded messages

Test Tool Repository

- https://github.com/network-analytics/yp_test
 - YANG-Push Test Automation Tool
 - Vendor deviations configuration

Apache Kafka Integration

- <https://github.com/network-analytics/yang-kafka-integration>
 - YANG Serializer
 - YANG Schema Registry Plugin

Name	Last commit message	Last commit date
..		
6Wind_VSR	hackathon test results 6wind and huawei ma5800	4 months ago
Cisco_IOS_XR	hackathon	3 months ago
Huawei_VRP-MA5800	hackathon test results 6wind and huawei ma5800	4 months ago
Huawei_VRP_NE8000	hackathon	3 months ago
ietf-122-hackathon-validate-yang-push-...	merged input from Alex and hackathon photo	4 months ago
ietf-122-hackathon-validate-yang-push-...	merged input from Alex and hackathon photo	4 months ago

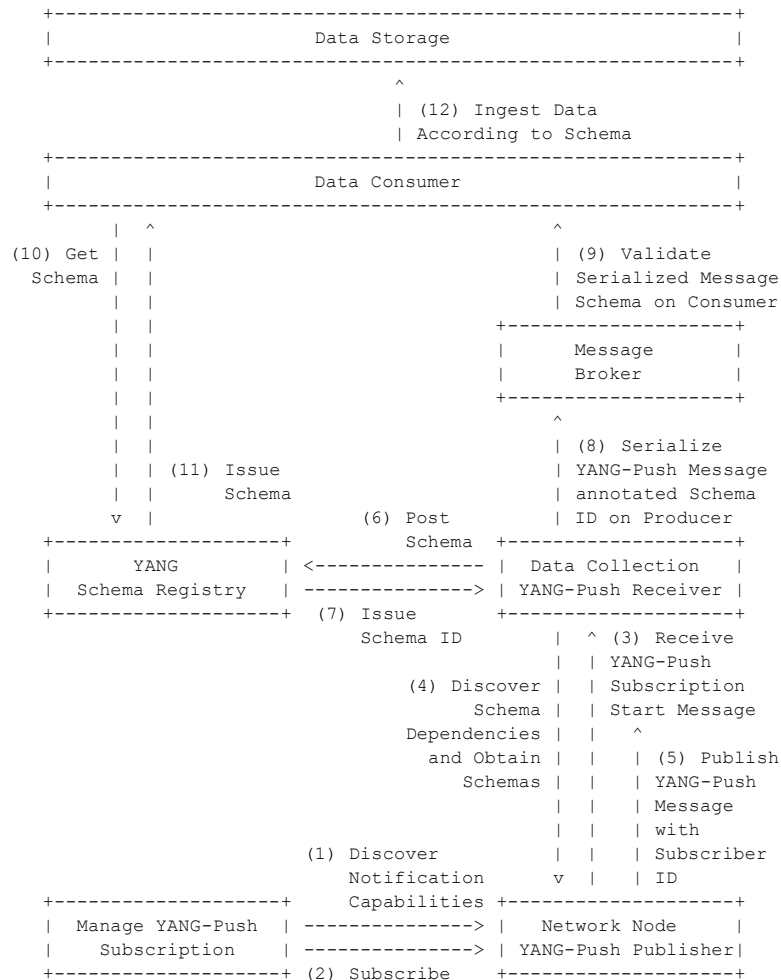
Merge branch "linted" into "master"			46e02372	History
Yannick Buchs authored 13 minutes ago				
Name	Last commit	Last update		
config	readme	14 minutes ago		
tests	update	14 minutes ago		
utils	update	14 minutes ago		
vendors	update	14 minutes ago		
main.py	update	14 minutes ago		
readme.md	update	14 minutes ago		
requirements.txt	update	14 minutes ago		

yang-json-schema-serde	Use proper server version 0.0.3	2 months ago
yang-json-schema-serializer	Use proper server version 0.0.3	2 months ago
yang-schema-registry-plugin	Use proper server version 0.0.3	2 months ago
.gitignore	Add YANG CBOR serde	2 months ago
LICENSE	Use apache license 2.0 for the project	2 months ago
README.md	Update readme	2 months ago
pom.xml	Use proper server version 0.0.3	2 months ago

An Architecture for YANG-Push to Message Broker Integration

draft-ietf-nmop-yang-message-broker-integration
draft-ietf-nmop-message-broker-telemetry-message

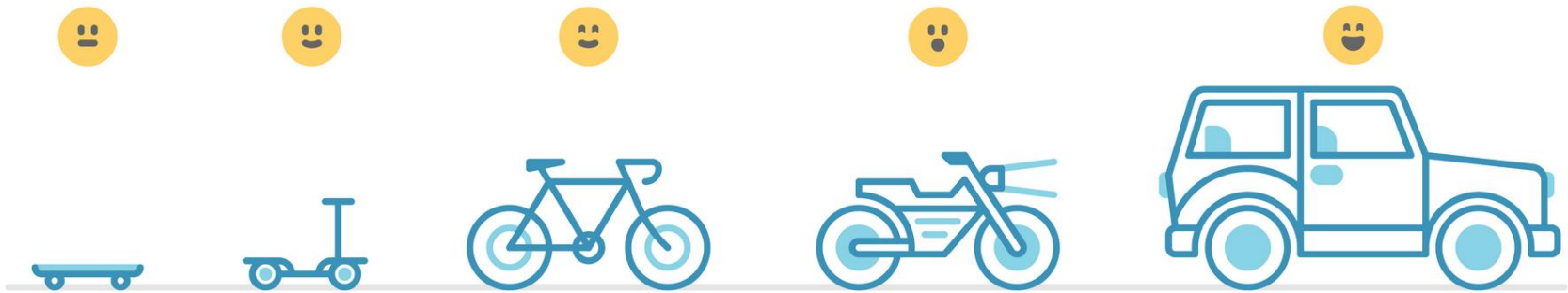
- Subscription to YANG Notifications
[RFC 8639](#)
- Subscription to YANG Notifications for Datastore Updates
[RFC 8641](#)
- UDP-based Transport for Configured Subscriptions
[draft-ietf-netconf-udp-notif](#)
- Subscription to Distributed Notifications
[draft-ietf-netconf-distributed-notif](#)
- Extensible YANG Model for YANG-Push Notifications
[draft-ietf-netconf-notif-envelope](#)
- Support of Versioning in YANG Notifications Subscription
[draft-ietf-netconf-yang-notifications-versioning](#)
- YANG Modules Describing Capabilities for Systems and Datastore Update Notifications
[RFC 9196](#)
- YANG Notification Transport Capabilities
[draft-ietf-netconf-yp-transport-capabilities](#)
- YANG Library
[RFC 8525](#)
- Augmented-by Addition into the IETF-YANG-Library
[draft-ietf-netconf-yang-library-augmentation](#)
- Encoding of Data Modeled with YANG in the CBOR
[RFC 9254](#)



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- Zhuoyao Lin – Huawei (remote)
- Jiale Li – Huawei (remote)
- Jian Ping– Huawei (remote)
- Xiao Chen– Huawei (remote)
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- Holger Keller – DT
- Nils Warnke - DT
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- Thomas Graf – Swisscom





Today, subscribing to a YANG datastore, publishing a YANG modeled notifications message from the network and viewing the data in a time series database, **manual labor is needed to perform data transformation** to make a message broker and its data processing components with YANG notifications interoperable.

State of the Union

From data **mess** to data **mesh**