

Subscriptions for Event Notification + Yang-push

NETCONF Interim
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Participating in Weekly (or more) calls

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Authorship for any resulting draft(s) will be determined based on significant levels of contribution

Tracking the work

- Github repository for 4 drafts under discussion
<https://github.com/netconf-wg>

	Current draft	Git name
Subscription Mechanism:	YANG Datastore Push	yang-push
	Subscriptions for Event Notifications	rfc5277bis
Choice of Transports:	NETCONF Transport for Event Notifications	notif-netconf
	RESTCONF Transport for Event Notifications	notif-restconf
	Future Transport Notification drafts	


- yang-push Git being used for global topics:
 - Global issues tracking
 - Terminology
 - Minutes and recordings of weekly meetings

Current Functional Partitioning Context

		Event Notifications		YANG Datastore Push
		5277 Mode	Enhanced	
Subscription	Types of Subscription	Dynamic	Dynamic and Configured	
	Subscriptions per Session	one		many
	Negotiation	No		Yes
	RPCs	create	establish, modify, delete	
	Control Plane Notifications	None	started, suspended, resumed, terminated, modified	
	Data Plane Notifications	notification	+subscription-id	push-update, push-change-update
Transport	NETCONF		Yes	
	RESTConf, HTTP, HTTP2	No		Yes

Legend

YANG Datastore Push
Subscriptions for Event Notifications
NETCONF Transport for Event Notifications
RESTCONF Transport for Event Notifications

Compatibility with RFC-5277 

Current Functional Partitioning Context

YANG Datastore Push (includes functions above Base Subscription Draft):

- Datastore on-change and periodic triggers
- YANG filters per RFC6241
- Authorization model per object
- Negotiation*
- Push-update, Push-change-update
- New stream types & stuff

Subscriptions for Event Notifications (Base Subscription Draft)

- Support for many subscriptions / transport
- Dynamic & Configured state machines
- Multiple configured receivers
- New stream types (syslog?)
- Authorization model per stream
- RFC5277 & XPATH filters
- RPCs: Establish, modify, delete
- Error responses (under error-info?)
- Notifications: started, suspended, resumed, terminated, modified
- Stream discovery
- Stream configuration
- Data Plane Notification
- 5277 mode & YANG model
- Replay (by Stream type)
- Prioritization
- Monitoring

NETCONF Transport for Event Notifications

- Transport mapping
- 5277 mode

RESTCONF Transport for Event Notifications

- Transport mappings
- Subscriber/receiver different
- Heartbeats and clean-up
- Subscription to HTTP2 stream

* TBD. Inclusion might drive discussion with full WG

Out of Scope/future: dynamic stream creation, new undefined filter types

Strawman Terms

Configured Subscription
Data Node
Data Node Filter
Data Node Security Filter
Data Node Update
Dynamic Subscription
Datastore
Event
Event Notification
Event Stream
Filter

Notification
Publisher
Receiver
Subscriber
Subscription
Subscription Policy
Update Notification
Update Record
Update Record Filter
Update Stream
Update Trigger

Working definitions at:

<https://github.com/netconf-wg/yang-push/wiki/Terminology>

(Expect tweaks/changes)

Current Issues being Worked

- **Review current (evolving) YANG Models**
- Should and where do we support parameter negotiation.
- What are the domains of different Stream types.
- Should we support multiple Receivers for a Configured Subscription.
- Security considerations for Subscriptions
 - Call home, minimal rqts to allow for Configured Subscription establishment, etc.
- Resolved: Naming of Dynamic & Configured Subscriptions