Network Telemetry Framework

draft-song-opsawg-ntf-03

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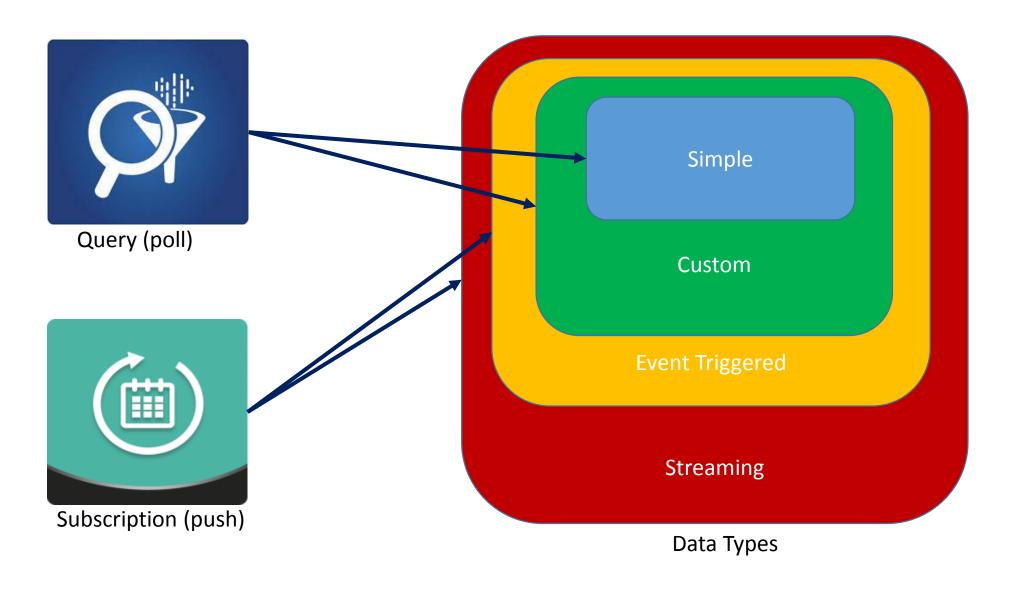
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What's new

- Requested for OPSAWG adoption on March 7
 - WG started adoption poll in email list on March 11
- Updates since version 02
 - Clarify the definition of Network Telemetry
 - Move the technique survey to the appendix
 - Clarify the relationship between network telemetry and network OAM
 - Articulate the need for partitioning telemetry to different network planes
 - Add data acquiring mechanism as a framework dimension
 - Add security discussions for network telemetry
 - Add discussions on network telemetry evolution

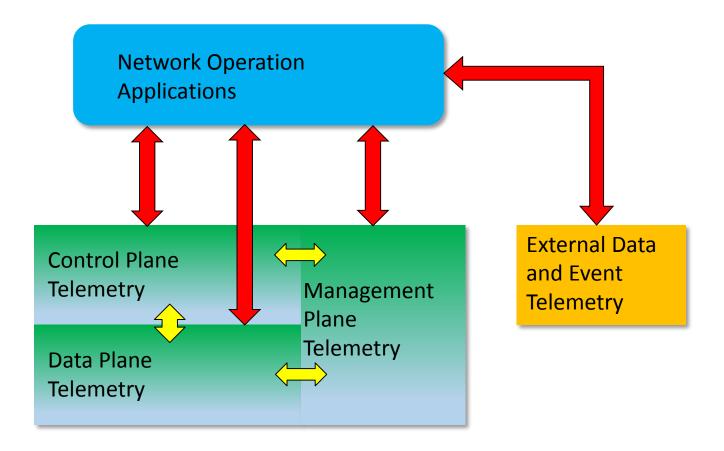
Telemetry Data Acquiring Mechanisms



Telemetry Data Objects

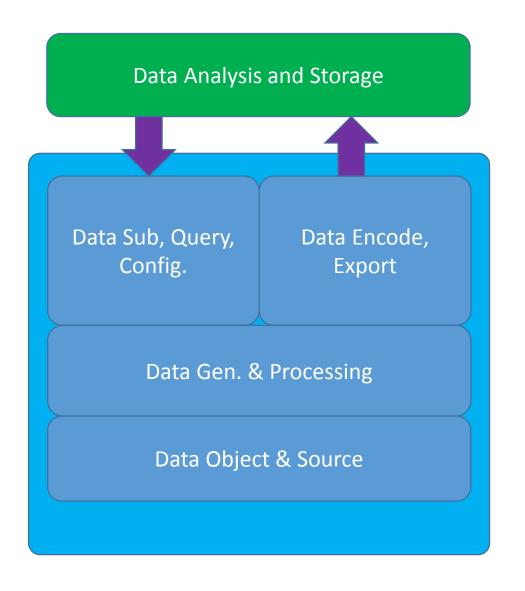
NETCONF Main control CPU Management Device config. & op. gRPC Plane status Different UDP monitoring entity & object PDU, RIB, FIB **Control Plane** Main control CPU, LC **BMP** CPU, FWD chip Different data source Data Plane User traffic LC CPU, FWD Chip **IOAM sFLOW** Different data export location **External Data** Social event, Terminals, Servers App info

Framework based on Telemetry Data Objects



- No one-size-fits-all solution
- Interface consolidation and unification are desired

Telemetry Function Components



- Data Analysis and Storage
 - Data requirement
 - Data sharing, distribution, and processing
- Data Subscription, Query, and Configuration
 - Interface for data request and model
- Data Encode and Export
 - Interface for telemetry data output

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- Data Generating and Processing:
 - Device side data preparation
- Data Object and Source:
 - Raw data source

Discussion and Next Steps

- Revise the draft based on suggestions and comments from OPSAWG
 - Thanks to Thomas Graf, Juergen Schoenwaelder, Adrian Farrel, Daniel King,
 and many others who provided tangible suggestion to improve the draft
 - Thanks to many network operators and OTTs who provided requirements and confirmed the validity and usefulness of the framework
 - More reviews and feedbacks are welcome!