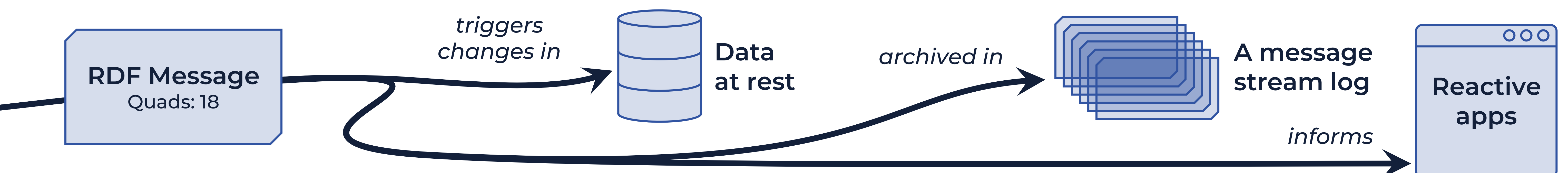


It's Time to Standardize RDF Messages

A small but essential ingredient for interoperability across message- and stream-based architectures



RDF Message := RDF Dataset intended to be interpreted as a single communicative act.

RDF Message Stream := ordered sequence of RDF Messages.

Protocol-agnostic! You can use HTTP, MQTT, Kafka, WebSocket, plain files...

Message Logs

We want to log and replay streams, without having to read the entire file before emitting the first message.

We propose an extension to [RDF 1.2 serializations](#) with **-messages** suffix on the version.

An example in Turtle

```
VERSION "1.2-messages"
_:b0 a sosa:Observation ;
  sosa:resultTime "2026-05-12T18:20:00Z"^^xsd:dateTime ;
  sosa:hasSimpleResult "22" .
MESSAGE # an empty message, maybe just a heartbeat, but no new observation
MESSAGE # the third message is another observation
_:b0 a sosa:Observation ;
  sosa:resultTime "2026-05-12T18:25:00Z"^^xsd:dateTime ;
  sosa:hasSimpleResult "23" .
```

Message Stream Profiles

Profiles define the shapes and interpretation of messages, including:

- Chronology, ordering
- Message shapes, temporal constraints
- Interpretation scopes

LDES

ActivityPub

SSN/SOSA

...



Proposed as a report of the
W3C RDF Stream Processing
Community Group

Read the full spec,
join the discussion

<https://w3c-cg.github.io/rsp/spec/messages>



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