



VOEvent evolution

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Evolving VOEvent coordination

Evolution plans based on compatibility and interoperability

Minor version number 2.x

- Small changes to the existing schema.
- Adding things to the existing schema.
- Compatible with existing software (Comet, 4piSky, etc.)

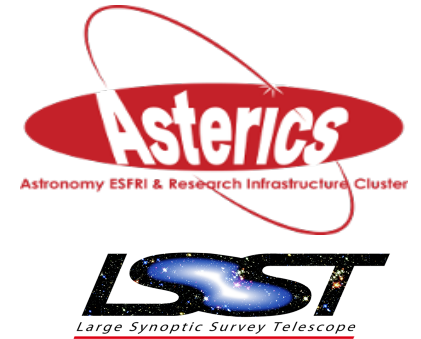
Major version number 3.x

- Large changes to the schema.
- New data formats, JSON, Avro etc.
- Next generation software, Avro, Kafka etc.





Next generation ZTF/LSST events



LSST *internal* alert processing – **not ready for external use yet.**

VOEvent and VTP protocol will not cope with the data rate
 10^4 events per 39 sec visit

Apache Kafka as the transport protocol



Apache Avro as the data format



LSST are actively working
within the IVOA

IVOA time domain group
are working with LSST

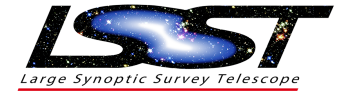
Experience from LSST
will influence future
development of VOEvent

Kafka and/or Avro may be part
of a future version of VOEvent

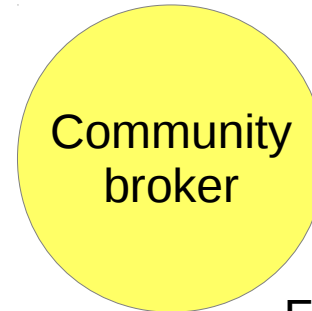
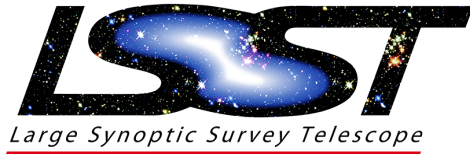




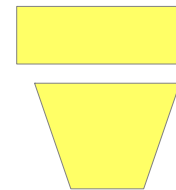
ZTF/LSST events
Kafka/Avro
VOEvent



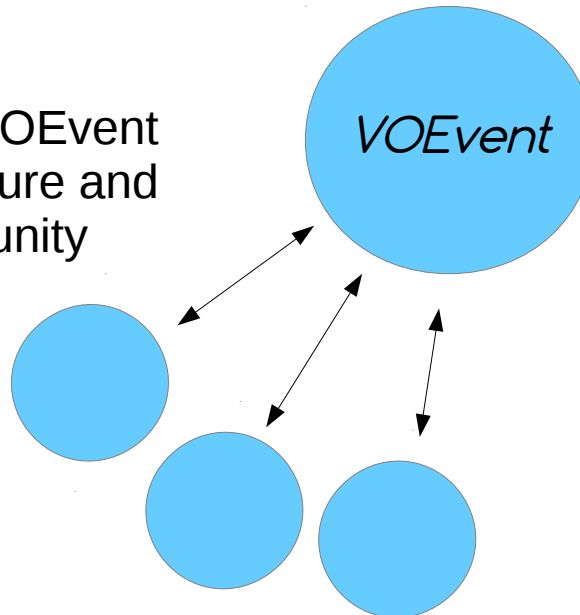
High data rate ($> 10^4$ Hz)



Filtering, processing
and annotation



Existing VOEvent
infrastructure and
community



Broadcast as VOEvent

Low data rate (< 100 Hz)





Evolving VOEvent 2.x

Science community requirements



VOEvent for Fast Radio Bursts

arXiv:1710.08155v1 [astro-ph.IM] 23 Oct 2017

Science community working together to agree
a common format for VOEvent content.

Flexible structure of the VOEvent <what> combined with
the structured language of UCDS and units works
well to describe the science.

FRB community has worked together to agree a common
set of parameters needed to describe a FRB.





Evolving VOEvent 2.x

Science community requirements



VOEvent for planetary science

Observatoire de Paris

Small changes to WhereWhen to support solar system and planetary reference frames.

Working with time domain group to ensure that the changes will be backwards compatible with existing 2.x software.

Aiming for minor version change in Q1 2018





Evolving VOEvent 2.x



Please join the discussion

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VOEvent should be designed by the people using it.

Mailing list

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