

# VOEvent Transport Protocol

# ...what's that?

**International Virtual Observatory Alliance**

**IVOA Documents**



**VOEvent Transport Protocol  
Version 1.0**

**IVOA Working Draft 24 June 2015**

**Interest/Working Group:**

<http://www.ivoa.net/twiki/bin/view/IVOA/IvoaDAL>

**Author(s):**

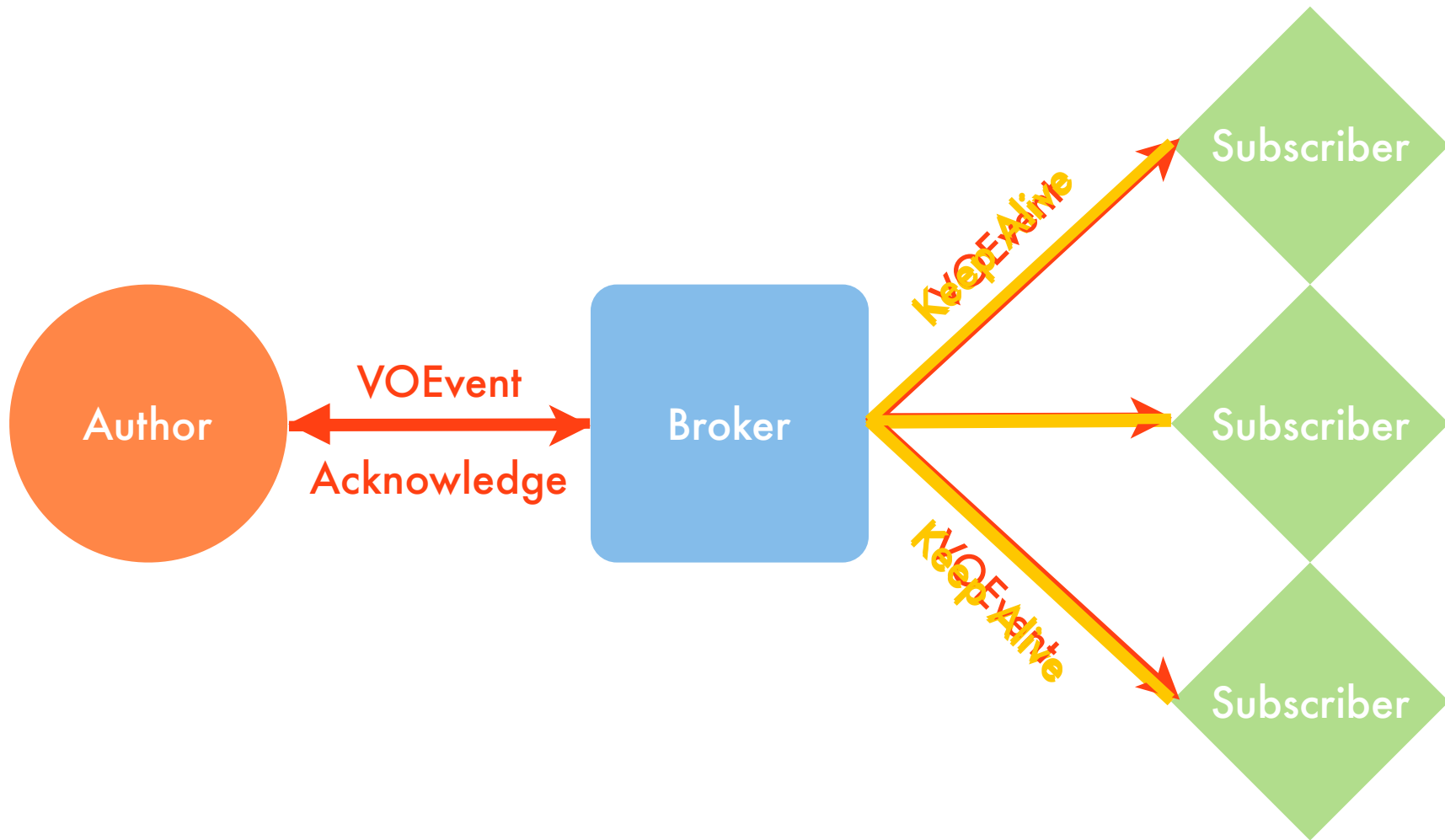
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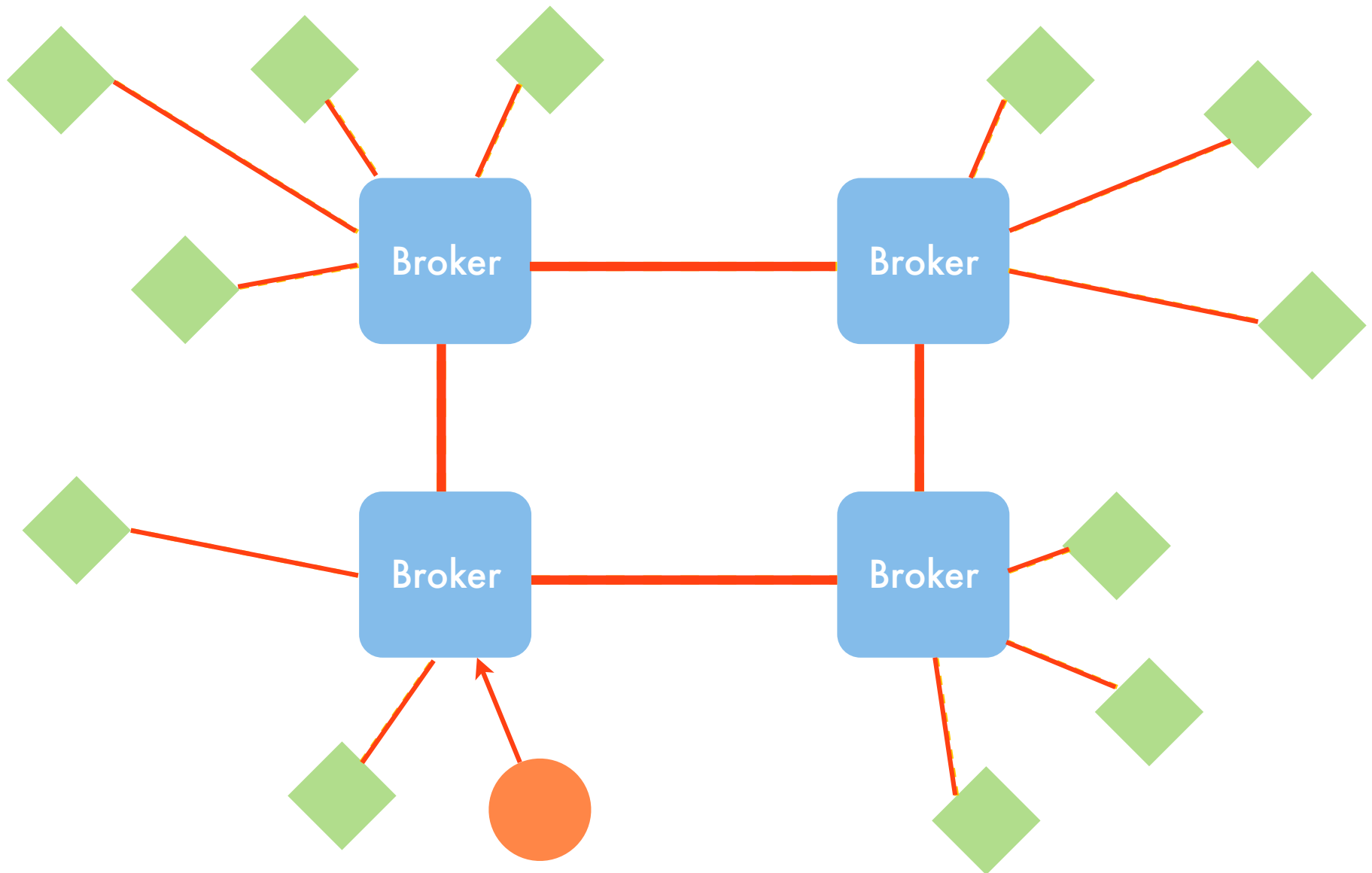
**John Swinbank**

<http://www.ivoa.net/documents/VOEventTransport/>

# VTP Overview



# VOEvent Backbone



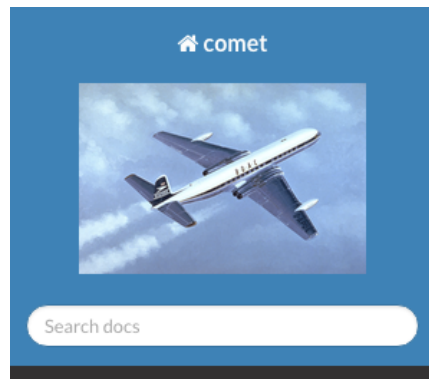
# ...why is it interesting?

- The only documented system that you can use today to sign up to network streams of VOEvents.
- Do so today at:
  - <http://voevent.dc3.com/>
  - <http://gcn.gsfc.nasa.gov/>
- Protocol is simple & easy to implement.

# ...how?

- Dakota Tools (Denny):
  - <http://voevent.dc3.com/>
- Comet (Swinbank):
  - <http://comet.transientskp.org/>
- voevent\_client\_demo (Barthelmy & Sheets)
  - [http://gcn.gsfc.nasa.gov/gcn/voevent\\_client\\_demo.c](http://gcn.gsfc.nasa.gov/gcn/voevent_client_demo.c)

# Comet



## Obtaining and Installing Comet

Installation using pip

Manual installation

Testing

Usage

Filtering

Event Handlers

Appendices

[Docs](#) » Obtaining and Installing Comet

[Edit on GitHub](#)

## Obtaining and Installing Comet

### Installation using pip

The latest version of Comet and all of the tools it depends upon can be installed using [pip](#). It is generally a good idea to use [virtualenv](#) to create an isolated, self-contained installation:

```
$ virtualenv comet
$ . comet/bin/activate
$ pip install comet
```

### Manual installation

#### Requirements

Comet is developed targeting Python 2.6 and 2.7. It depends upon:

- [Twisted](#) (version 11.1.0 or later)
- [lxml](#) (version 2.3 or later)
- [zope.interface](#) (versions 3.6.0 or later)
- [py2-ipaddress](#).

How you make these dependencies available on your system is up to your (or, perhaps, to your system administrator). However, the author strongly suggests you might start by taking a look at [virtualenv](#).

<http://comet.transientskp.org/>

# Note/WD Revisions

- Highlights:
  - Explicit requirement that events are not changed in transit;
  - Requirements to avoid message loops;
  - Explicit time requirements for connection maintenance;
  - Clarification of when to send *ack* vs *nak* responses.



# Note/WD Revisions

- Clarifications of the existing note.
- Some format changes still needed (arch diagram, 'MAY' vs 'may', etc)
- Formalize presentation & use of language.
- On-the-wire protocol remains the same: no changes to existing clients.
- Minimal changes to existing brokers.
- Ultimate goal: IVOA REC standard.

# Current Status

- Working Draft version:  
<http://www.ivoa.net/documents/VOEventTransport>
- Two reference implementations available
- One client implementation available
  - could be extended to become validator as well
- Protocol is stable, TDIG wants to complete REC process