Blockchain PSIG Call Notes

*7 Jan 2021*

# Attendees

* Rencher, Robert J
* Robert Stavros (Jackrabbit, 556992)
* Mike Bennett
* Ian Stavros
* Bobbin Teegarden

# Agenda

* Plans for Q1
* Webinars
  + RFP
  + RFI
* AoB

# Meeting Notes

## Things to consider in future

Importance of distributed computing – e.g. infrastructure resilience

Decentralized v Distributed

### Streams (LETS RFP)

Importance: narrowing of the data. Meaning – you have a narrow pipe e.g. Blockchain / Ethereum etc. v IOTA Tangle (broader – DAG not a pipe).

Potential costing models on this.

Streams itself can run on different ‘transport’ layer (DLT or non DLT). So the scenario in non DLT scenarios is that you need to think about resilience for content in the Streams layer.

(we have a meaning there that doesn’t have a word, for ‘transport’)

Sharding.

(does this always mean the same thing? E.g. data sharding)

In normal parlance (non DLT) ‘data sharding’ just means putting data in different data centers.

Regular sharding (means what?)

IOTA Sharding – means when you can have different parts of the Tangle on different nodes.

What’s a ‘node’? Similarly possible to get confused by.

The notion of Streams may also be misunderstood – people might think they are already doing this when they are not.

#### Questions for Streams:

Can you merge these, can you spawn new parallel streams?

In DDS this is called ‘filtering’. Or something like this is called filtering. This question might be about something different. Having streams interact with each other is something more like multiplexing (mixing).

Are there more things we might like to see or encourage in the RFP response that aren’t already in the RFP.

Streams – define a private context within the Tangle. Can you merge contexts, can you spawn another private stream?

Separately, in DIDO RA CLI we see:

* Aggregation
* Orchestration

But DIDO-RA is more about the ‘equivalent to DLT’ layer i.e. the ‘transport’ layer. Should be able to aggregate txns together and orchestrate these.

Streams provides contextually related messages (they relate to one another in the stated context).

Example of what we mean by context here: Mortgages.

There may be separate sub contexts within this e.g. inspection of the real estate.

From some of these sb contexts we may be pulling information together for messages in another context (e.g. state, regulatory etc.)

* Context1: the whole process (e.g. IR Swap
* Context 2: sub process (e.g. one swimlane; one loop e.g. interest accrual), e.g. one touch point e.g. post to GL and so on.

Decompose contexts

Thereby decompose streams for the contexts (and aggregate again)

**Question:**

How much of this is a question for the application, how much if any is a question for the specification (standard), how much if any is a question for the RFP.

Feed this into webinar. Useful stuff for anyone building an application.

Application:

* May want to branch
* May want to recombine
* May want to nest

Another perspective:

* Also push and pop
* Spawn

Push a context out and then pop back in when you are ready

Spawn is where there is some activity that needs to come off the LETS that you are on.

What we have in the RFP: branching (spawning)

#### Things Not in the LETS RFP

Not in the RFP: **recombining**

BUT: we can encourage submitters to include things we haven’t included in the RFP.

Also: **nesting**

i.e. Sub contexts (holonic system).

There was an early PoC that uses this.

Adds meanings to the relationships between messages (e.g. supersedes)

Can use this for relationships whereby something refers to a stream in a sub-context.

Can you have messages in more than one stream?

(in IOTA Streams – no)

* Can the standard support this?
* Can the application do this whether or not the standard mentions it?

Can you e.g. go back and establish the state of a Stream on a given date?

**Multicast?**

RR: From my perspective we need to clarify streams from a functional and technical perspective

* Model these in different tools e.g. swimlanes and other techniques for the business process side.
* Other methodologies for modeling a stream like event

Talk about this next week as we prepare the slides.

Also think about how to represent the technical (functional) side. Layers etc.

Also interaction between multiple ecosystems (see Interoperability RFI)

Moving from sequential to asynchronous business models.

(see also resilience earlier)

NS: see earlier comments in the [chat]

e.g. Sequence, BPMN, State etc. Streams as a concept is important here – be able to represent in these different formats. Also how to cross reference between technical model notation and the business view of things. Kind of ‘semantic trace’ relationships.

Also be able to reflect **context**.

Need examples. Take the same Stream / application and show in the different formats.

So: the technology is the servant of the functional process; we are now at a tipping point where the tech facilitates the transformation of business move way from business transactional model. The concept of Streams allows for a dynamic response, so business is mod adaptive to opportunity.

* Talk to that at the webinar
* Blockchain as the enabler of all this (the source of event /activity)

Called: ad hoc? Dynamic? (engineered not ad hoc i.e. engineering in the dynamic capabilities of the system.)

### WIKUD

See slides from Interoperability RFI work.

Wisdom, knowledge, understanding and data

See also ISA25

Context applies at each of these levels. Need to know which level you are talking about.

DDSF automation pyramid also uses these concepts.

### Webinars

OMG putting on two webinars for our stuff. MB presenting.

* RFP webinar on 27 Jan
* RFI webinar on 3 Feb

#### 1. LETS RFP:

#### <https://www.brighttalk.com/webcast/12231/460991>

#### 27 Jan

#### Press release goes out Mon / tue 11 / 12 Jan)

#### D-SSID RFI:

#### No Press Release; LinkedIn instead

#### Webinar 3 Feb:

#### <https://www.brighttalk.com/webcast/12231/461001>

#### <https://www.linkedin.com/company/omg/>

#### Publicity:

For LETS RFP Press Release

For DSSID RFI: did a LinkedIn post. Not seen a Press Release (maybe they are doing one)

### Aside

NS: A sub-stream is a subset of a stream that is derived from a filter. The transactions within the sub-stream are basically transforms of the data in the log.

NS: The end result of the sub-stream is the aggregation into a transaction into the higher stream.

NS: Transforms and transactions can be orchestrated but only within the same "stream level"

# Chat Log (unedited)

**Chat Log C:\Users\Mike\Documents\ChatLog Blockchain PSIG 2021\_01\_07 14\_20.rtf**

**Robert Stavros (Jackrabbit, 556992) (to Everyone)**: 1:31 PM: A sub-stream is a subset of a stram that is derived from a filter. The transactions within the sub-stream are basically transforms of the data in the log.

**Robert Stavros (Jackrabbit, 556992) (to Everyone)**: 1:32 PM: The end result of the sub-stream is the aggregation into a transaction into the higher stream.

**Robert Stavros (Jackrabbit, 556992) (to Everyone)**: 1:33 PM: Transforms and transactions can be orchestrated but only within the same "stream level"

**Robert Stavros (Jackrabbit, 556992) (to Everyone)**: 1:35 PM: The stream -> substreaming process roughly follows the WUKID model. As you sub-stream you are moving down the WUKID paradigm

**Robert Stavros (Jackrabbit, 556992) (to Everyone)**: 1:36 PM: as you aggregrate back up you are moving back up the WUKID spectrum.

**Bobbin Teegarden (to Everyone)**: 1:37 PM: Now you'

**Bobbin Teegarden (to Everyone)**: 1:38 PM: you're getting into holonic structures, processes composed of sub-processes, swimlanes at an abstract level being composed of swimlanes of the various parties involved, etc. Holonic!

**Robert Stavros (Jackrabbit, 556992) (to Everyone)**: 1:38 PM: I think streams need to be modeled at each o fht edifferent modeling types. For example, ER, process, system, event, etc

**Bobbin Teegarden (to Everyone)**: 1:39 PM: contexts are holonic at their various levels of abstraction, the view/perspective being examined...

**Robert Stavros (Jackrabbit, 556992) (to Everyone)**: 1:40 PM: Exactly. Within each layer of the WUKID there is another layer of WUKID and on and on we go

**Mike Bennett (to Everyone)**: 1:47 PM: WEbinars:

**Mike Bennett (to Everyone)**: 1:48 PM: 1. LETS RFP:

**Mike Bennett (to Everyone)**: 1:48 PM: https://www.brighttalk.com/webcast/12231/460991

**Mike Bennett (to Everyone)**: 1:48 PM: 27 Jan

**Mike Bennett (to Everyone)**: 1:48 PM: Press release goes out Mon / tue 11 / 12 Jn)

**Mike Bennett (to Everyone)**: 1:49 PM: D-SSID RFI:

**Mike Bennett (to Everyone)**: 1:49 PM: No Press Release; LinkedIn instead

**Mike Bennett (to Everyone)**: 1:49 PM: Webinar 3 Feb:

**Mike Bennett (to Everyone)**: 1:50 PM: https://www.brighttalk.com/webcast/12231/461001

**Mike Bennett (to Everyone)**: 1:51 PM: https://www.linkedin.com/company/omg/

**Bobbin Teegarden (to Everyone)**: 1:57 PM: Nick, more info on WUKID?

**Bobbin Teegarden (to Everyone)**: 1:59 PM: There are the swimlanes?

**Bobbin Teegarden (to Everyone)**: 2:00 PM: ... or a good sequence diagram...?

**Rencher, Robert J (to Everyone)**: 2:05 PM: All, a most interesting discussion today. From my perspective we need to clarify streams from a funcitonal and technical perspective... Have a great day. Robert

**Rencher, Robert J (to Everyone)**: 2:05 PM: I need to drop off.

**Robert Stavros (Jackrabbit, 556992) (to Everyone)**: 2:14 PM: WUKID - Wisdom, knowledge ind=formation, data

**Robert Stavros (Jackrabbit, 556992) (to Everyone)**: 2:15 PM: Wisdom undersstanding, knoeldege information and data