Blockchain PSIG Call Notes

*9 July 2020*

# Attendees

* Mike Bennett
* Bobbin Teegarden
* Robert Rencher
* Rob Nehmer
* Nick Stavros

## Apologies

* Neil Aeschliman

# Agenda

* Catch-up on status of each of the things in flight
* DDS Information (for LETS RFP, IOTA)
* Definitions
* Determine activities and priorities for this quarter

# Meeting Notes

## Main activities:

* LETS RFP
* Ephemeral SSIDs RFI/P

### Other things to cover:

* Definitions / terminology (FinTech, RegTech, Blockchain etc.)

Lars Toomre on GovDTF is looking to a group of volunteers to look at a thing he’s doing and come up with definitions within a suitably constrained context.

## Other Matters

### DDS Presentation for IOTA Foundation

IOTA would be interested in a presentation on DDS.

NS: Working on a DDS cookbook over the summer (can present sooner). The stuff is all in a wiki, similar to the DIDO one we saw.

Also make sure people on the Blockchain PSIG can also attend that call.

### DDS Wiki Walk-through

Nick Stavros gave a walk-through of the DDS wiki – comments below during this presentation

#### DDS Foundation

There is a DDS foundation. This is a nonprofit outside of OMG, to facilitate the use of DDS. No vendor is in charge; NS is in charge of this, run by OMG but stand-alone.

RTI also involved? Yes. Also Adam Minsk from OCI? Adlink. Twin Oaks.

Q: What do we mean by a ‘DDS Vendor’?

A DDS vendor is someone who sells middleware. OCI really sell consulting service as it is an open source product.

Twin Oaks – specialize in embedded systems.

### Application in IoT?

Sure – see use cases on the wiki

See also Edge computing

DDS overs the interactions, what’s missing is the data store (e.g. the Tangle)

So if we could hook IOTA up with GE and work on the instrumentation, we would have something new.

Network inconsistency – things always change or go down but you will still collect the data.

Can set QoS parameters and dynamically change at run time

Also using DDS in the SmartGrid

TMS

#### Streams / LETS RFP applicability

We could come with a DDS-Streams (maybe something already in DDS on this).

Question: is there anything that needs to be modified in the lower layer of DDS or is Streams just an extension or usage of DDS?

Blockchain use cases - e.g. in the medical example

QoS will be interesting for blockchains.

#### DDS Security

DDS Security – tagging and labeling – who can see what message or part of message.

So there is a part of the LETS RFP that needs to correspond to that.

#### API

There is an API level as well. Calls standard APIs that vendors have.

#### Interoperability

So interoperability:

* Wire protocol
* API Bindings

Can pick up something from one vendor and us on another one’s wire infrastructure.

#### DDS Variants

DDS for RPC – post CORBA.

XML one – done / recently approved.

Mechanisms for transformation from one protocol to another e.g. take an IDL message and generate the C, C++ or Java code, so after you sent it over the wire, if the guy receiving is using Python but there was no binding for Python, he can receive in JSON and from there realize this into Python objects.

This is why you don’t want to recreate this stuff.

### IOTA DDS Presentation

Who should present this?

* Possible: Dan Schneider (RTI) – but may be too high level
* Other people that Nick suggested
* Nick

Nick is working on this Wiki (to finish by the end of the summer). Not public yet.

**Conclusion:** Nick will be the one to present this.

### DDS Usage

There is a mandated list of places where DDS has to be used.

Includes General Vehicle stuff. This is mandated, within UK and NATO vehicle use.

IOTA – looking at Mobility.

Other vehicle manufacturers.

### Joining DDS

BT: Could Mike join the DDS Foundation as an IOTA rep?

NS: there is a way to join. Different levels for vendors, for users. No cost.

IOTA could join as a DDS consumer. Or Vendor.

DDS handles most of the NFRs. NS is going through each one, what it means, the DDS specifics of how DDS provides that thing (e.g. availability, data integrity and so on).

## Definitions

### Terminology

The new group of volunteers is looking at how to define Context in order to have definitions in context

NS has Glossary links in the wiki.

NS has way of defining context as e.g. ‘Blockchain General’

Using DocuWiki

## Actions:

### IOTA DDS Presentation

2 week window for that presentation.

MB to go back to the IOTA folks.

## AoB

Anyone wants to come in as a user on the DDS wiki please mail Nick. It is still under construction.

## Next Meetings

Next week: Ephemeral SSID

Week after LETS RFP / DDS reference / implementation on that.