Blockchain PSIG Call Notes

*5 September*

# Attendees

* Lars Toomre, BRC
* Nelson, IOTA
* Mike Bennett, IOTA

## Apologies

* Allen Brown, Deixis
* Robert Rencher, Boeing

# Agenda

1. Updates / interesting developments etc. in the DLT world
2. DLT Ecosystem Interoperability RFI planning / structure
   1. Interaction layers and data cadences
   2. IOTA MAM and EEE Proposals – where they might fit this structure
   3. Other potential solutions to parts of the interoperability question (e.g. identity / identification)
3. AoB

# Meeting Notes

## Updates

Mike Bennett – went to Blockchain / Identity event in Edinburgh yesterday.

Spoke to: IOTA – Serguei Popov, Moody Alam (Director of Research)

Identity of people – remains a difficult problem. Not ready for standardization according to some experts

### Discussion - Identity

UN group working on that as well.

US: Identify of mortgage borrowers. How they keep that private.

OFR also involved with identity matters.

Identity v privacy remains a difficult issue.

Is this on the Nashville agenda? Shall we get the MBS folks to talk about this to us?

E.g. loan – if you publish the location you can identify the person, even their SSN.

The broader issue – what you can infer from existing data.

## Interoperability RFI

### Scope of the RFI

Supply Chain v Interoperability generally

#### Implications of Scope

Personal identity and identification, privacy, security etc.

* Would be in play if we covered overall DLT Interoperability
* Would not be in play if scope was supply chain only

### RFI Structure

#### Layers

See notes on 7-layer OSI model

#### Data styles

Need a more visual version (try a pyramid)

What goes on the DL and what does not? e.g. platooning:

#### Detail: Platooning

Platooning = when one truck follows another.

The platooning itself need not be on the DL. But could use a DL to contact another available driver or similar. This is platooning.

Doing with human + human – ‘drafting’ (slipstreaming). The term platooning relates to autonomy. Autonomous driving. You would platoon a group of trucks with the front one doing the decision making. As far as we understand.

IOTA’s MAM can be used for platooning. We will have examples for platooning with MAM this month (software only, with models having sensors and driving). Watch this space.

This is also likely to throw up interoperability issues.

### Other Interoperability Challenges

Permissioned and non-permissioned chains being v different presents a challenge.

e.g. Hyperledger and Hyperledger Sawtooth (Aerospace industry). This is permissioned.

Sharing (interoperability) with other networks – you would not want all the information that is needed in a permissioned network. Also there are language issues and mismatches.

For permissioned networks, need to not pass over the data to another network you are interacting with. Instead, be able to have a trusted 3rd party who provides some hash of that information.

Similar to more general self-certified identity question (see Edinburgh event).

Alternative – not having a central 3rd party? How would that work?

e.g. IOTA – establishes trust within a community.

How to evolve that experiment further Trust built into IOTA.

Can the trust (reputation) in the one network be that which I trust for sending a hash confirming my data, to another network. Then no 3rd party, but extension of trust.

Then reputation – as new players come along.

### Potential Standards / Future RFP Reponses

Potential standard? Reputation management across the range of DLT networks (some of what is in DIDO covers that).

DIDO may have a lot of the building blocks for a potential way of establishing reputation points among DLT ecosystems.

**Question:** Can you break down the variables in DIDO and others, to be able to generate reputation points for a given DLT network / ecosystem, without needing a 3rd party to manage that?

IOTA has this at the level of the individual IOTA Nodes.

See also IOTA MANA – similar principles have been established in Stack Overflow and other review-based systems. Can something like this be done for overall DLTs?

Can build up economic clusters within IOTA, and other economic clusters across different DLTs.

## Conclusions – RFI Scope

The RFI should tease out the possible kinds of RFP we will be looking for and the potential responses.

### Reputation Management

Then e.g. IOTA Mana might be a response to the RFP on reputation management. Or some consortium of IOTA and others, getting the best of all the existing reputation management arrangement in e.g. StackOverflow and other non-DLT things. Also connecting to the concepts in DIDO.

These rely on being audited e.g. ISO 9000.

This is an aspect of interoperability that we did not yet cover: Reputation (across DLTs).

**Action:** add that to the list.

Reputation – existing e.g. StackOverflow relates to humans.

### Health

IoT: Look at vehicles and vehicle health. The Space Station is a vehicle. State of its health.

e.g. maintenance – brakes, tires. State of engine. Reputation of the device. This is also critical for cross-DLT interoperability.

See also industrial sensors – always know when they were last calibrated (that is another audited thing).

### What else on RFI?

This is OK for now.

**Action:** MB Post slides to the wiki.

# Annex: Chat Log

*Topic: Nashville planning / IOTA key personnel availability*

**Nelson (to Everyone)**: 2:02 PM: Nashville

**Nelson (to Everyone)**: 2:03 PM: Eric is on vacation

**Nelson (to Everyone)**: 2:03 PM: We have a video

**Nelson (to Everyone)**: 2:03 PM: Mat Yarger is supporting us