**Tangle Marketplace**

Rolling Meeting notes

# Next Scheduled Call: **14th of May** Proposed time: 5 - 6 pm CET

# **Resources**

Tangle EE Member Contacts:  
[Member Contacts](https://drive.google.com/open?id=1fMVT3vxRMZhtqUHrQXkiOW8o2Bv_D6Vt4IIlCposB0w)

Mailing list:  
[tangle.ee-wg@eclipse.org](mailto:tangle.ee-wg@eclipse.org)   
*To post a message to all the list members, send email to* [*tangle.ee-wg@eclipse.org*](mailto:tangle.ee-wg@eclipse.org)*.  
You must be* [*subscribed*](https://accounts.eclipse.org/mailing-list/tangle.ee-wg) *to the list before you can post.  
To access a web archive of this list, visit the* [*tangle.ee-wg Archives*](http://www.eclipse.org/lists/tangle.ee-wg)

Tangle EE Shared drive:  
<https://drive.google.com/open?id=1vZWMUziyjhjd-yHu-jwUpfBBdLUOYLah>

Slack workspace:  
tangleee-wg.slack.com

Slack invite link:  
<https://join.slack.com/t/tangleee-wg/shared_invite/zt-ci1v1wio-eHiQjNpC_Od2Jamgii0mng>

Tangle EE WG Charter:<https://www.eclipse.org/org/workinggroups/tangle_ee_charter.php>

Eclipse Unified Identity Project:  
<https://projects.eclipse.org/proposals/eclipse-unified-identity>   
  
Eclipse Decentralized Marketplaces Project:  
<https://projects.eclipse.org/proposals/eclipse-decentralized-marketplaces>

**Enterprise Data Management**

**Purpose:** Scoping & Refinement + forming Project Team

**Thursday, May 14th at 5:00 – 6:00pm CET**

**Attendees: (Please add):**

Jan Pauseback (IOTA)

Thale Gartland (IOTA)

Jelle Millenaar (IOTA)

Antonio Nardella (IOTA)

Wilfried Pimenta (IOTA)

Alexey (IOTA)

Johannes Mayer (Laboratory for Machine Tools and Production Engineering (WZL) of RWTH Aachen University)

Stéphane DIDIER (CNA)

Steve Todd (Dell Technologies)

Sulav Adhikari (Dell Technologies)

Joann O’Brien (TM Forum)

Alaettin Dogan (Helmut-Schmidt-Universität, Automatisierungstechnik)

André Bryde Alnor (Energinet)

Peter Lyck Ingerslev (Energinet)

Martin Schmidt (Energinet)

Antonio Vilei (STMicroelectronics)

Christoph Strnadl (Software AG)

Philippe Calvez (Engie)

Markus Lücking (Forschungszentrum Informatik)

**Agenda (Add your topics below):**

* Welcome
* Dell presentation Data Management application

**Captured minutes (please add if anything critical is missing):**

Steve:

* A data management application, built to explore user interface for enterprise data that gets registered in the Tangle.
* A lot of overlap → maybe possible to combine the two projects
* Intro
  + Six questions that need to be answered/ figured out.

***Question:*** *How is the application data versus the enrichment data registered on the Tangle? (Steve, Dell)*

* Do not want to store the data on the Tangle, wouldn't scale. (Christoph, Software AG):
* Antonio (IOTA):
  + Data stored on IPFS and linked on the Tangle <https://ipfs.iota.org/> - [blueprint](https://docs.iota.org/docs/blueprints/0.1/tangle-data-storage/overview)
  + Chronicle - IOTA Foundation official permanode solution: [blog post](https://blog.iota.org/introducing-chronicle-a-permanode-solution-8e506a2e0813) - [documentation](https://docs.iota.org/docs/node-software/0.1/chronicle/how-to-guides/get-started)
  + Community initiative called [AION](https://medium.com/@o_van_wijk/aion-milestone-1-6d7407cde5ac) - community built selective permanode solution
  + AFAIK: IOTA defined as a communication protocol, not as a storage solution
* Might fit better to do it off the tangle, have the proof be on the ledger itself. (Martin, Energinet):
* Philippe (Engie):
  + Have a use case linked to energy consumption and energy production.
  + Use the Tangle only as a reference system
* Steve (Dell):
  + GDPR issues with putting it on the Tangle.
  + Should focus on off-Tangle data storage.
* Christoph (Software AG):
  + Not rule out the possibility of storing some data on the Tangle. Not completely rule it out. Separate these use cases.

***Question:*** *What are your thoughts on a corporate identity? (Steve, Dell)*

* Jelle (IOTA):
  + Corporate identity is relatively easy to anchor into IOTA.
  + How does the corporate actually manage this identity? Use the identity part of the WG
  + Do you (Steve) think that this is the type of identity management that should be part of the dashboards?
    - Thinking about one specific use case. Related to question 5.
    - How do I find my data asset? How do I make sure nobody sees my dashboard? How do I prove that is my data?
    - What takes place when a company registers their data in the tangle? How can my dashboard leverage that?
* Christoph (Software AG):
  + Would not need the Tangle EE to display the company data
  + Focus on these use cases that cannot be implemented simply by buying or renting by using salesforce.com as your customer.
* Jelle (IOTA):
  + The next steps would be to share data and use this data. The trust in the data is most important.
  + The dashboard is going be important for centralized marketplace
  + What is the step beyond the dashboard?
* Steve (Dell):
  + What if it was a user out there that had permission to look at pieces of the company's data?
  + Maybe solved using off the shelf type of RBAC
  + Need some innovation

***Question:*** *How is the data provenance /history /confidence /trustworthiness represented?* *(Steve, Dell)*

* Jelle (IOTA):
  + IoT projects out there very relevant for this question
    - [Eclipse Vorto](https://projects.eclipse.org/projects/iot.vorto)
  + Invite them to participate in this WG or look into their WG
* Christoph (Software AG):
  + Can capitalize a few of the things. Don’t think we want to go into the semantics of the metadata.
* Philippe (Engie):
  + Big movement in European Commission regarding the European data space
  + Takes a lot of time to standardize, but there is some initiative around the interoperability, this will apply to IoT.
  + Self-description of smart contracts → could be part of a solution.
* Steve (Dell):
  + Our community does not want to get heavily involved in the semantic pisces, but make artitecture preparation.

***Question:*** *How can the data of virtualization API search the Tangle most efficiently?**(Steve, Dell)*

* Suggested that there should be a separate persistent store as opposed to iterating over the whole Tangle
* Jelle (IOTA):
  + Can use the corporate identities for, a identity registered on IOTA can have several energy points
* Christoph (Software AG):
  + Not sure if this is a problem at all. Would not search the Tangle, but a database which contains a suitable representation of all the data
  + The database is entered data structure used right now, are not searchable
  + Maybe side project: providing an open source framework for such a metadata search database.
* Steve (Dell): How much disparity or heterogeneity are we going to have in these databases?

***Question:*** *What if someone wants to look at some parts of the data, have access to data from a particular country or time? (Steve, Dell)*

* Antonio (IOTA):
* IOTA streams, put the data on the Tangle and encrypt it with a key. Only people with that key have access to the data.
* Can give access to whom you want to, and you can also request payment for the data
* Markus (Forschungszentrum Informati) :
  + Looking at how to encrypt specific part of a data stream

***Questions:*** *Should we be concerned with the Data virtualization API overlaying different DLTs, not just the Tangle?* *(Steve, Dell)*

* Christoph (Software AG):
* Interesting, think about it internally Steve:
* Steve (Dell):
  + If anybody in the community, has these use cases where a different ledger needs to be combined with something going on in the Tangle
* Jelle (IOTA):
  + Digital Identity uses standards that make sure that it is interoperable with other distributed ledger.
* Joann (TM Forum):
  + API design perspective: the more agnostic the API can be → architecturally better
  + Understand the constraints from a design perspective. Avoid any designs that would cause us to be too specific.

***Question:*** *Do you think it should overlap with the data management part? (Jelle, IOTA)*

* Steve (Dell):
* That one use of a dashboard is to discover and browse data that you might want to purchase. Do think it makes sense.

***Question:*** *Wondering if someone that is close to being identified as a problem owner? And if not, maybe identify a problem owner outside the group? (Wilfried, IOTA)*

* Christoph (Software AG):
* If we want to run this as a project, then we certainly would need something like a project team

The two projects do work as a single case. Consider making a data dashboard, and eventually link this to the marketplace using Energinet’s case and data. Different options → what do we focus on first? If we choose to focus on the pieces from the Green Origin Certification project that is provided to us, that might allow us to streamline and be more focused.

**Action Items (Add action items below):**

* List of topics we find interesting