Q&A Session for "Introduction to Traceability Chains for Manufacturing Supply Chain Visibility"

Session number: 27632426809

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Starting time: 2:00 PM (Eastern)

On behalf of the project team, we would like to extend our sincerest thanks to each of you who attended our webinar held on June 7, 2023. Your active participation, insightful questions, and shared experiences truly enriched the event and made it a great success. We acknowledge that due to time constraints, we were not able to fully address all questions during the live session. As such, we have prepared this Q&A response document to ensure that your inquiries do not remain unanswered. This document encompasses all the questions submitted during the webinar and our comprehensive responses to each. It is our hope that this further facilitates understanding and stimulates continued discussion on the subject matter. We truly appreciate your engagement and look forward to many more insightful conversations in the future.

Q1: When you collect all this data about routing and quality, how will you score it?

Response: The traceability chain uses Distributed Ledger Technology (DLT) and other blockchain related technologies, to record transactions stored in DLTs within applicable manufacturing ecosystems. The traceability chain records store some data and references other data repositories and facilitates collecting, organizing, and providing information to authorized actors throughout the supply chain process. The primary goal of the MVP and the traceability chain is capturing such information in traceability records including the links between them, to support other external processes such as risk assessments or other decision processes. Because each end-user could have different use cases, processes, or threat intelligence information to cross-check the traceability data, it would have to be left to external organizations to determine how to use the provenance and pedigree information to support their decision processes. This is an excellent point, and we will review the PD to determine if any updates or clarifying details should be added.

Q2: About not dealing with the scoring, is that you will end up collecting massive amounts of data and then as you move into scoring, you will find out that the data collected needs to be adjusted.

Response: The MVP is the initial attempt to provide the mechanism to record the provenance and pedigree information that supports additional actions such as scoring. The additional point about having to adjust data collection is very valid as a comprehensive data structure that supports all use cases and end operating environments that also fits within the practical data constraints of DLT implementations will be difficult.

The PD attempts to address this point, at least partially, by stating the traceability record could include references to external systems where detailed data for a particular component or batch might be stored. Having the provenance and pedigree information from the traceability chain would allow authorized actors to, at a minimum, identify specific vendors or organizations that performed specific

actions on the product and allow them to contact them and negotiate access to the additional data or details they require to support scoring or other decision processes. This is an excellent point, and we will review the PD to determine if any updates or clarifying details should be added.

Q3: Is it expected that the Identity Provider also utilizes Blockchain Related Technology? Is there interest in that type of implementation?

Response: Some background information about the MVP is that we recognize that identity (including identification, authentication, authorization, validation) is a key component. While the initial MVP will utilize a single identification store across the ecosystems, The PD also discusses, at least at a high level, how the traceability chain records will accommodate more real-world scenarios such as each ecosystem adopting their own identity store.

For the MVP, we are attempting to not make specific technology decisions beyond the general use of DLT to enable the MVP capabilities. We welcome any technology partners who believe they can meet the capability requirements that are outlined in the Federal Registry Notice (FRN) which will be published in the next few months.

Q4: Is it anticipated that this will lead to a security certification that can be used to defend "market preference" to justify the ROI for a participant?

Response: We would encourage you to visit the NCCoE website and review the [Collaborate with Us: Technical Contributions | NCCoE (nist.gov)](#) for additional information and contact information about the benefits of participating on NCCoE projects.

Q5: I chair the Traceability task force at SEMI and would like to evolve the 6504 standard we are working on in parallel with the MVP in the hope that our data and transaction models end up being harmonized and standardized.

Response: The PD attempts to address this, at least partially, by emphasizing that the goal of the MVP is to demonstrate and identify the information necessary to support cross-ecosystem traceability and basic provenance and pedigree. The MVP data model is meant to be flexible, extensible, and even replaceable to allow research and experiments with actual industry standards or other data models and test the ability to support traceability across ecosystems.

We are excited by the work of SEMI and others to establish standards that can be utilized within the ecosystems to support province, pedigree, and traceability chains in general. If there are any specific comments or suggestions regarding the fields listed in the PD, we would welcome any insight or input to improve the traceability chain transactions. However, at this initial stage, we are not seeking to reconcile the traceability sub-types with standards efforts.