

Quick notes

UNTP Technical WG

Aug 20, 2026

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The committee discussed technical standards for digital credentials and concluded on decentralized verification methods and protocol scope.

Public Review Feedback

- Phil clarified that 'verify' involves technical signature checks, while 'validate' denotes a human trust decision.
- The group accepted this distinction to clarify documentation regarding credential processing.

Graph Validation and Constraints

- The team decided to adopt Shackle for describing conformity rules in the V1 release.
- Future development will explore translating structured English into deterministic Shackle constraints.
- Phil suggested that generic UNTP implementations should potentially support Shackle-based validation.

Solution Provider Conformity

- Harley proposed potential methods for certifying solution providers, including registries and digital conformity credentials.
- Phil and Adriana advised against central certification due to limited budget and structural authority.
- The group agreed to prioritize providing assessment tools, such as test suites and well-known extensions.

V1 Roadmap Planning

- The team is evaluating public review issues to prioritize deliverables for the V1 release.

Traceability Event Models

- Albert announced plans to consolidate separate data models for make, move, and modify events into the EPCIS framework.

Next steps

- ☐ [Harley Thomas] Update Review PR: Explicitly state the requirement for validating resolved credentials within the workflow in the merge request from Anish.
- ☐ [Albert Verdeny] Research GDST Suite: Investigate the Global Dialogue on Seafood Traceability capability test suite to determine how their approach to provider testing might inform current discussions.
- ☐ [Harley Thomas] Update Testing MR: Add a summary of the group discussion regarding solution provider testing and conformity to the draft merge request to stimulate additional feedback.
- ☐ [Harley Thomas] Categorize Version 1 Issues: Evaluate public review issues to determine which ones should be addressed before version 1 release.
- ☐ [Phil Archer] Review Version 1 Issues: Analyze the tagged issues to ensure they are accurately categorized for the next meeting.
- ☐ [Albert Verdeny] Consolidate Traceability Events: Integrate the separate make, move, and modify data models into the EPCIS framework.
- ☐ [Albert Verdeny] Create UNTP Schemas: Develop simplified JSON profiles that define the minimum requirements for the UNTP context.

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Full notes

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Attachments  UNTP Technical WG  Notes - UNTP Technical WG

Summary

The committee discussed technical standards for digital credentials and concluded on decentralized verification methods and protocol scope.

Credential Validation and Standards

Clarification was established between technical verification and human validation of digital credentials. The group decided to adopt Shackle constraints for initial protocol rule definitions.

Addressing Implementation Risks

Concerns regarding compliant solution providers prompted a rejection of central certification. Reliance on transparency and market reputation remains the preferred verification approach.

Consolidation of Protocol Models

Traceability models will be unified by integrating Electronic Product Code Information Services. Future efforts will focus on simplifying requirements via profiles.

Decisions

Aligned

- **Shackle adoption for version one** The group decided to utilize Shackle to describe and publish rules for version one, while excluding the development of a structured English subset for the current roadmap.
- **Core and extension Shackle constraints** The group aligned on a strategy to establish a core set of common Shackle constraints for the UNTP, while allowing specific extensions to define their own supplementary constraints.
- **Retailer criteria constraints exclusion** The group confirmed that the requirement for publishing specific business-to-business retailer and importer criteria constraints is outside the scope of the core UNTP standard.
- **Tooling over central certification** The group decided that the UNTP will not act as a central certifying or auditing authority for solution providers, but will instead focus on providing tools and test suites for external verification of compliance.

We've **updated the Decisions section** using your feedback.

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Details

- **Public Review and Credential Validation:** Harley Thomas addressed a public review comment from Anish at Microsoft regarding the need to explicitly state the requirement to validate resolved credentials, such as digital product passports, within a workflow. Phil Archer clarified the technical distinction between "verify"—which involves checking signatures and technical integrity—and "validate," which represents a human decision to trust or accept a credential, such as when a credential has expired. Harley Thomas agreed to incorporate this clarification.
- **Graph Validation and Shackle Constraints:** Harley Thomas led a discussion on a merge request regarding the validation of linked data graphs for deforestation-free credentials. The consensus, supported by Albert Verdeny and Roman, is to utilize Shackle for version 1 of the UNTP (United Nations Transparency Protocol) to describe rules and constraints. While there was interest in developing a method for non-technical users to write these rules, the group determined that creating a system for translating natural language to Shackle is currently out of scope and should be reserved for the future roadmap.
- **Implementation of Shackle and Scope:** The group discussed whether generic UNTP implementations should be required to validate against Shackle files. Phil

Archer suggested that UNTP is application-focused rather than abstract, meaning that while publishing Shackle files is beneficial, they may not apply to every use case globally. The group explored the idea of creating a core set of Shackle constraints that could be imported or extended, rather than forcing a single, universal constraint file that might exclude regional differences.

- **Recognized Entity Specification:** Phil Archer introduced the "Recognized Entity" specification from the W3C (World Wide Web Consortium), which addresses how to verify an issuer's authority. This concept provides a framework for accreditation, allowing systems to confirm that a credential issuer is recognized by a relevant organization. This approach helps solve the problem of verifying chains of trust without requiring UNTP to manually approve every entity.
- **UNTP Guidance and Business Constraints:** Harley Thomas asked if UNTP should provide guidance or publish constraints for specific retailers or export requirements. Phil Archer advised that the core UNTP standard should remain abstract and facilitate these processes rather than defining specific business rules, which are better suited for "adjacent documentation" or guidance materials, noting that GS1 has a team dedicated to this type of promotional and implementation support.
- **Testing and Conformance of Solution Providers:** Harley Thomas discussed a merge request aimed at properly testing solution providers that claim to be UNTP-compliant. The challenge identified is that a provider could "game the system" by using mock data that passes test suites while the actual production system remains non-compliant. The group debated whether UNTP should issue digital conformity credentials to verified providers or if other methods of verification are required.
- **Risks of Fraudulent Implementation:** Adrienna Zsakay expressed concern regarding the risk of "dodgy" or poorly skilled service providers damaging the reputation of the circular economy and UNTP. The group acknowledged the lack of budget for a central, staffed certification body and debated the feasibility of algorithmic verification. Albert Verdeny suggested that using existing artifacts like JSON schemas and Shackle constraints could provide a baseline for users to test if a service provider is actually implementing the protocol correctly.
- **Standards Bodies and Certification:** Phil Archer and the group concluded that standards bodies like UNTP generally provide the necessary tools (such as test

suites and well-known location extensions) rather than certifying individual companies. Phil Archer recommended implementing "well-known" location extensions, allowing providers to advertise their compliance, which users can then test independently, thereby shifting the reliance from central certification to transparency and market reputation.

- **Roadmap to Version 1:** Harley Thomas requested that participants review the updated issue tracker and assist in categorizing tasks into "Version 1" deliverables versus future work. This prioritization is intended to focus efforts for the next fortnight to ensure key objectives are met for the release.
- **Consolidation of Traceability Events:** Albert Verdeny provided an update on consolidating traceability events, specifically integrating EPCIS (Electronic Product Code Information Services) and "make, move, modify" models into a unified EPIS structure. The plan is to establish these as the core model for UNTP, potentially using profiles to simplify requirements and reduce the complexity of extra fields that are not necessary for the protocol's context.

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