Aligning RESCALE with SCITT

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RESCALE project info

Revolutionised Enhanced Supply Chain Automation with Limited Threats Exposure

Project Consortium: 15 partners

Project Type:
Research & Innovation Action

Duration: 36 Months

Start Date: 1 October 2023

Total Budget: €4,998,250.00

What’s RESCALE all about

RESCALE is an end-to-end cybersecurity framework for protecting ICT supply chains across hardware and software components

Design and develop a complete toolbox to audit and increase the security of supply chain based on emerging technologies for both **hardware** and **software** modules. Tools include side-channel, cache, and microarchitectural attack assessments, innovative fuzzy hashing techniques, symbolic execution methods, static and dynamic analysis.

Provide a Trusted BOM approach that will infuse trust in software and hardware supply chain and promote trusted updates associated with Blockchain 2.0.

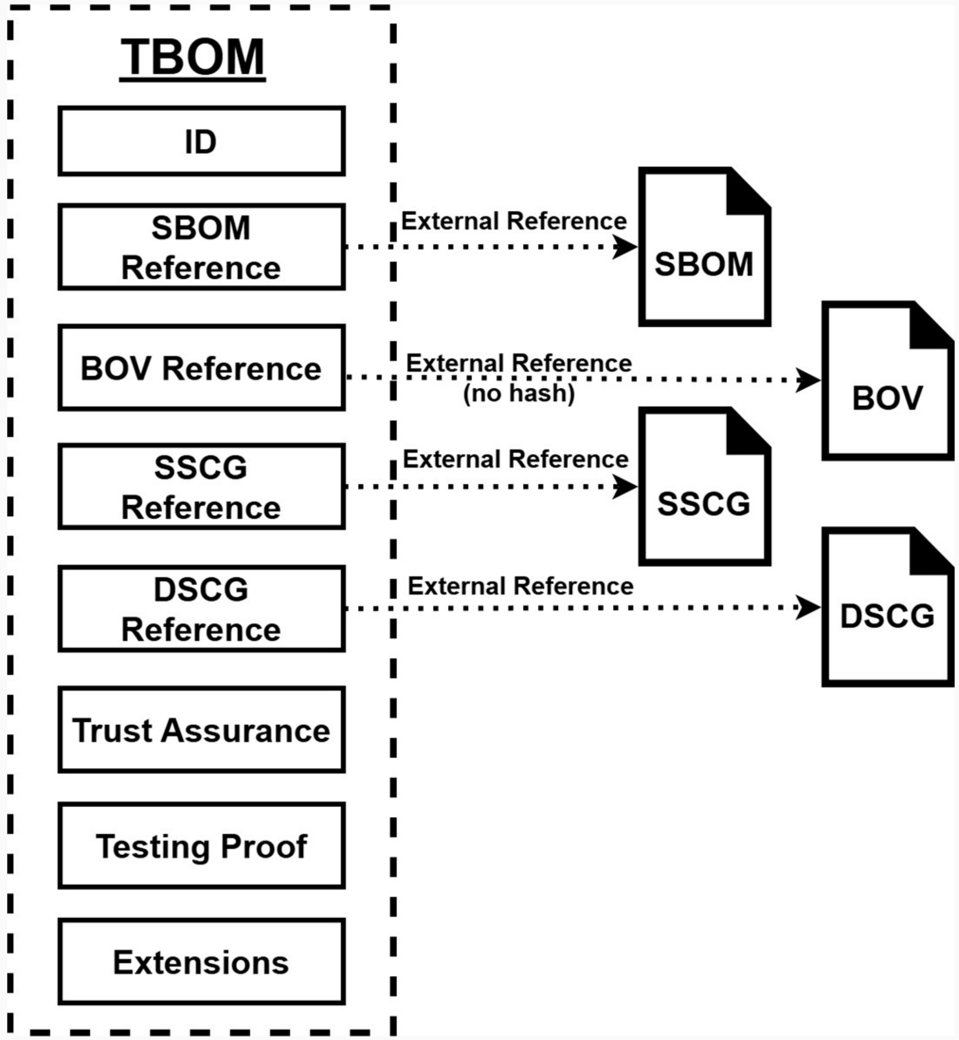
Enables **continuous post assessment monitoring and security assurance** through an integrated dashboard

RESCALE key concepts

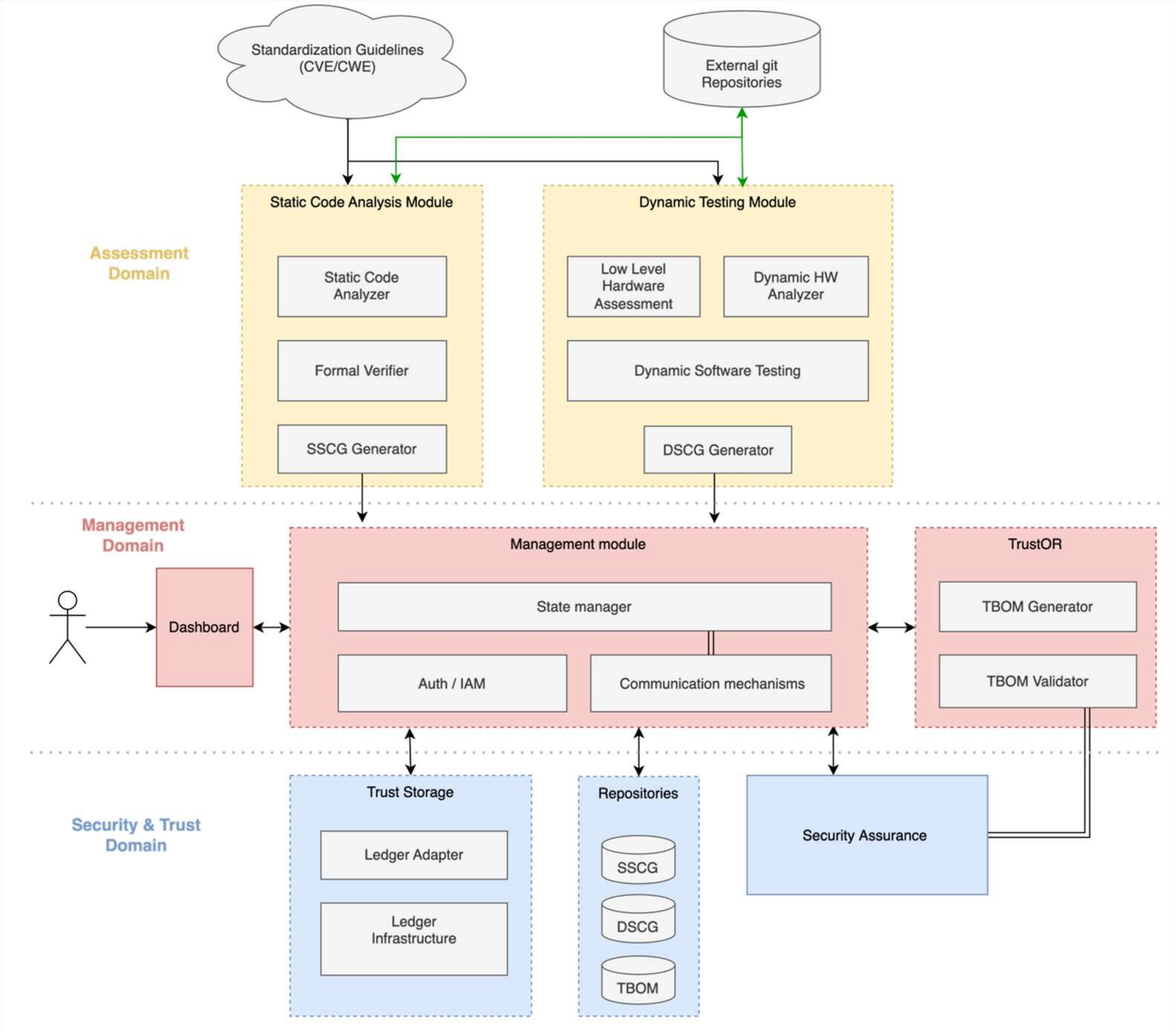
- **Static Supply Chain Guarantee (SSCG) (immutable):**
  - Contains an SBOM and results of Static Analysis Tools.
  - Created by owner of the asset.
- **Dynamic Supply Chain Guarantee (DSCG) (immutable):**
  - Contains the results of Dynamic Analysis Tools.
  - Created (usually) by an external entity.
- **Bills of Vulnerabilities (BoV) (continuously updated):**
  - A document continuously updated from CVEs/CWEs based on the SBOM of the TBOM.
- **Trusted BOM (TBOM) (immutable):**
  - It’s the combination of SSCG+DSCG+BoV

RESCALE TBOM Structure

- **CycloneDX** format JSON
  - UUID, external document hashes (SBOM, SSCG, DSCG)
  - Trust assurance, signatures
  - Testing Proofs (test execution confidence)
  - Bill of vulnerabilities, static / dynamic supply-chain guarantees
- **Development status** – Draft implementation complete & integrated (MVP) – Still under progress



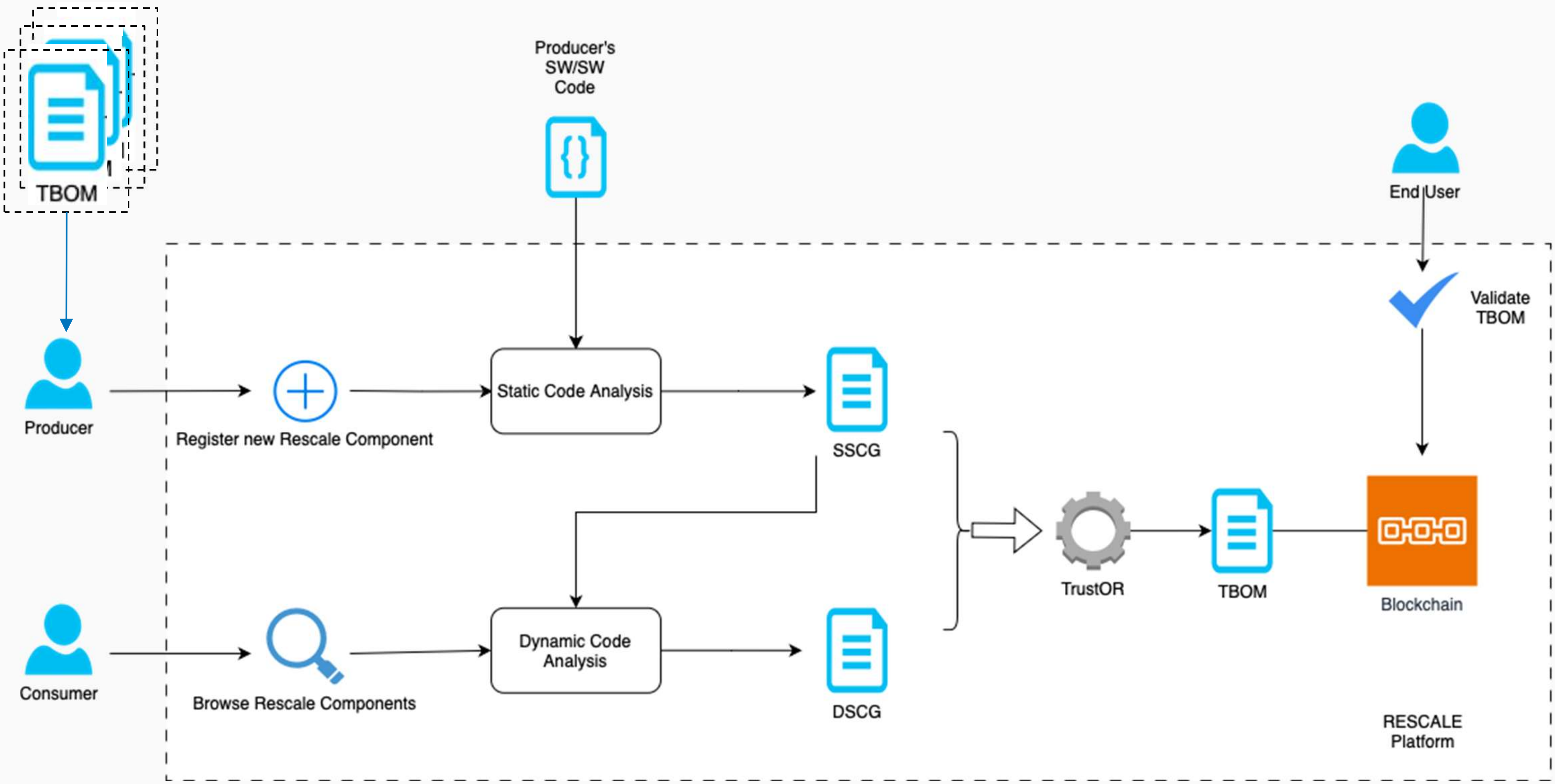
RESCALE Architecture



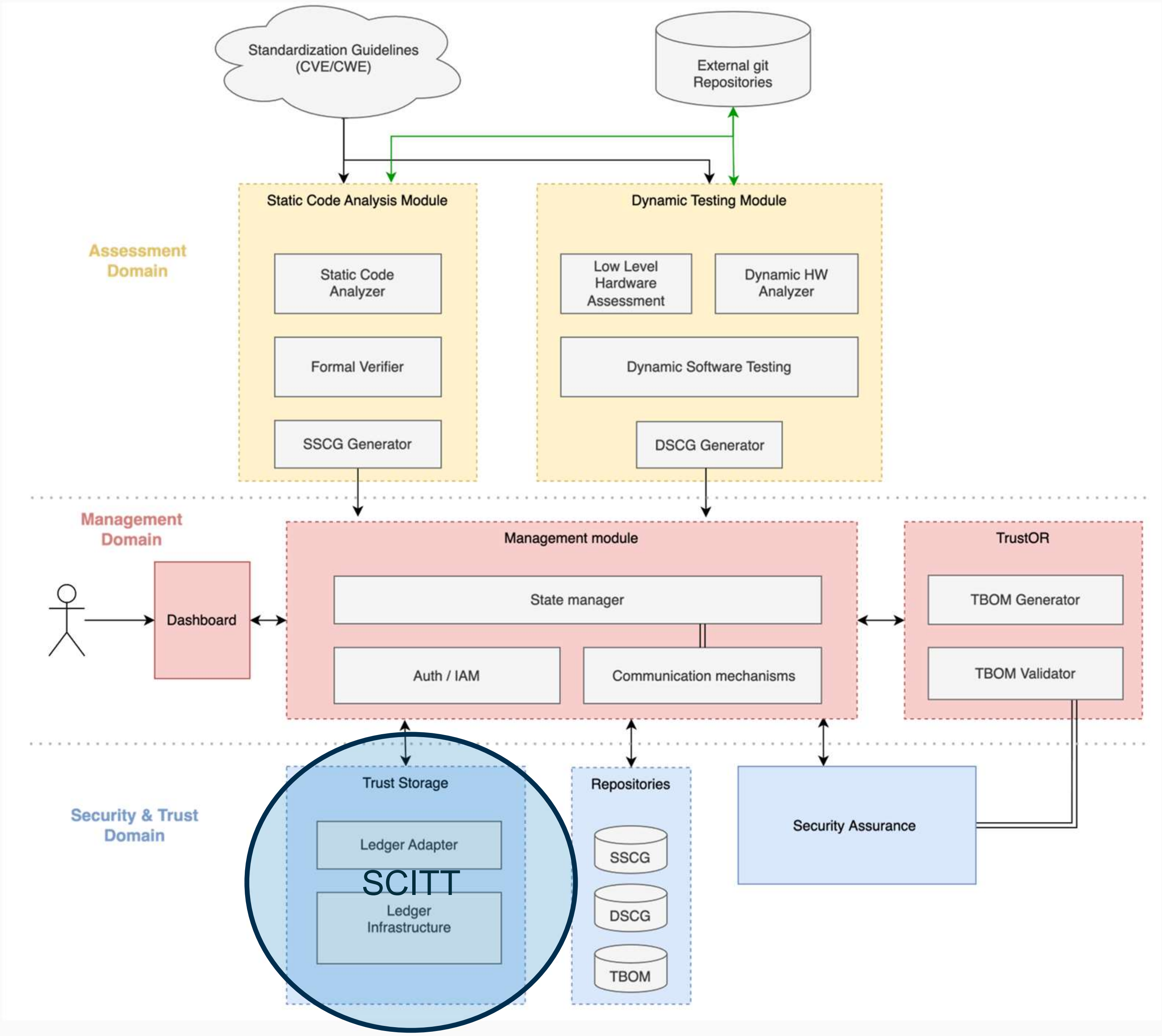
RESCALE Key Users

- **User Types:**
  - **Producer:** uses third party libraries (with or without TBOMs) and performs static code analysis on its one code producing SSCG.
  - **Consumer:** user the producer's code or executable and performs dynamic testing on it generating the DSCG.
  - **End User:** The final user of an application, can act as the final consumer and only validates TBOMs

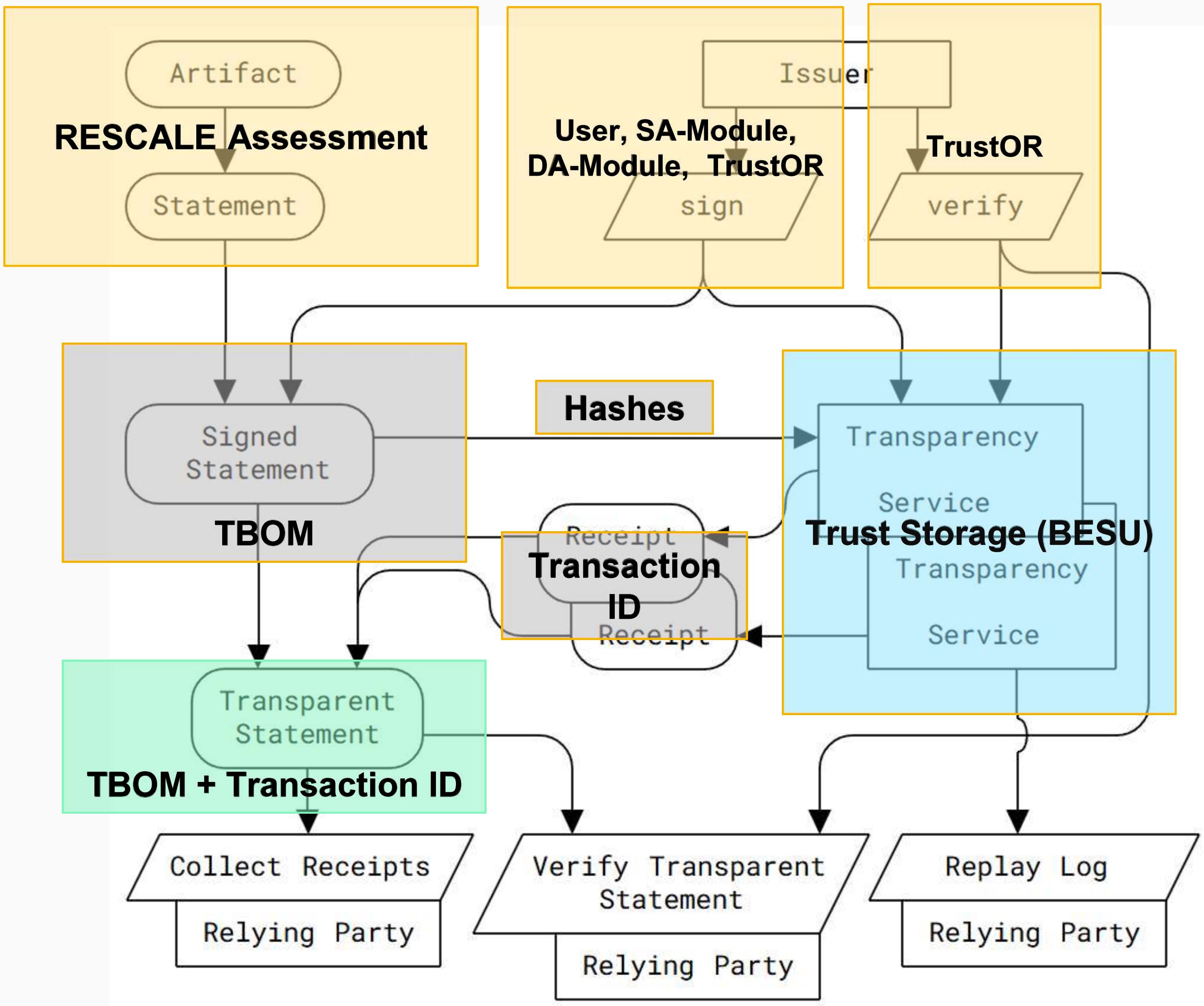
RESCALE Building Supply Chain Trust



Ubi est SCITT?



Ubi est RESCALE?



Quo vadis?

- Thank you for your attention/Questions?

- For more info:
  - RESCALE Website:
    - https://rescale-project.eu/
  - RESCALE Demos:
    - https://youtu.be/CD64xB1i614?si=2HvivlejAYNk8Bav
    - https://youtu.be/VQvGwlWfQSs?si=R05W4T5n8O50MgjM

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