

A Fully Traceable Supply Chain Based on Smart Contracts

Thema:

A Fully Traceable Supply Chain Based on Smart Contracts

Art:

BA

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Status:

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Stichworte:

Smart Contracts, Supply Chain, Ethereum

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Hintergrund

Traceability of any food item becomes more and more important as supply chains grow steadily more complex. Storing all the individual steps of a product, its ingredients and additional information e.g. sensor data in one central database is not feasible, as it must be fault proof and tamper-resistant. Smart Contracts in combination with Blockchains could possibly be the solution to bring a fully traceable supply chain to life.

Zielsetzung der Arbeit

Developing a prototype of a supply chain from wine-field to bottle based on the Ethereum Blockchain and Smart Contracts. The individual interactions should be visualized in a web-based UI.

Konkrete Aufgaben

Theory:

- What are smart contracts (and Blockchains)
- Research of existing Blockchain solutions for supply chains

Practical:

- Sketching and programming the required structure of Smart Contracts in the programming language Solidity
- Building concept of a web-based frontend to visualize the individual interactions with the Smart Contracts

Weiterführende Quellen

TBD

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