

01	HashstaX vision & benefits
02	Roadmap & current key features
03	How to use HashstaX?
04	How to use Riddle & Code?
05	Potential hackathon challenges

01	HASHSTAX VISION & BENEFITS
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HASHSTAX VISION:



ENABLING FUTURE PROOF & DLT-AGNOSTIC DEVELOPMENT

Challenge: Uncertainty & complexity **CHALLENGE: UNCERTAINTY & COMPLEXITY** Build knowledge: Time needed to build know-how & develop dApps • Tech lock-in: No DLT is future proof, but selection creates lock-in effect

Solution: HashstaX allows DLT-agnostic development Hashgraph Future blockchain tech? IOTA Scalability HASHSTAX Ethereum (PoS) Bitcoin (PoW) Security

SOLUTION: HASHSTAX ALLOWS AGNOSTIC DLT DEVELOPMENT

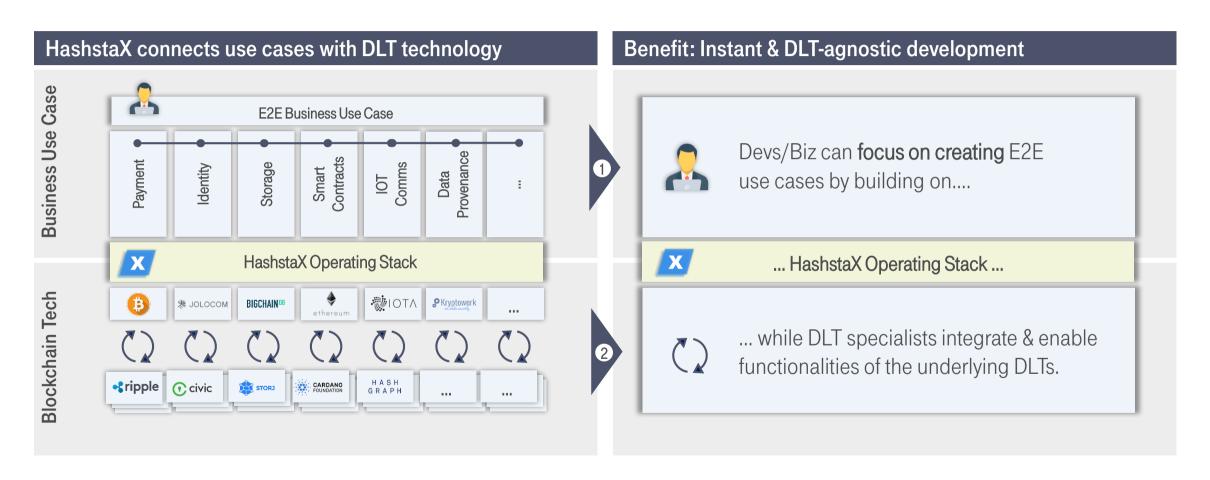
- Instant setup: No DLT know-how needed for dApp development,.
- Flexibility: Development independent of underlying DLT technology.



HASHSTAX BENEFIT:



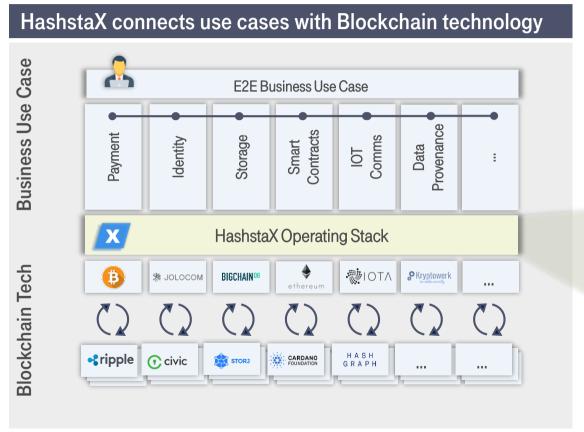
HASHSTAX AIMS TO MITIGATE UNCERTAINTY & COMPLEXITY

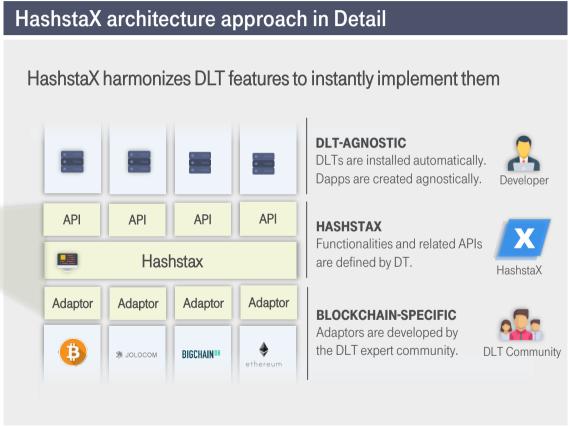


HASHSTAX ARCHITECTURE APPROACH:



AN ECOSYSTEM TO CONNECT DLT COMMUNITY WITH DEVS





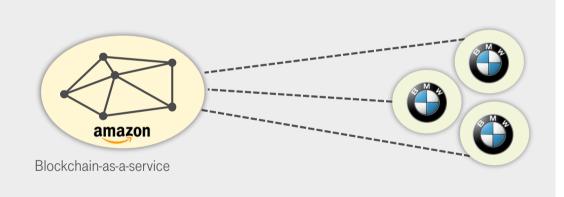
WHY HASHSTAX?



BECAUSE WE DO PROVIDE DLT DECENTRALLY

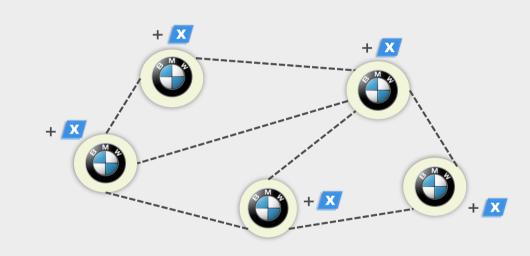
Centralized Decentralization (typical BAAS)

Typical BAAS models are in fact centralized approaches



Decentralized Decentralization (HashstaX)

HashstaX enables DLT implementation on premise





HashstaX Meta Code to implement DLTs on premise

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RELEASE ROADMAP



ROADMAP VIEW REGARDING KEY FEATURES

Key feature roadmap **UI 3.0 Concept AMP & Bounties Consortia Management Smart Contract API Data migration** ※ 巻 Further adapter development Store (on premise) **Identity API HSTX 0.4 [Tortilla] HSTX 0.6 [Nacho] HSTX 0.8 [Burrito]** 6/18 2/19 2/18 10/18 6/19 **HSTX 0.3 [Alpha] HSTX 0.5 [Quesadilla]** HSTX 0.7 [Taco] Storage API **Connectivity management** Store (testnet) **Payment API** Recommendation engine Dynamic DLT (re)config **Support Net ID mgmt.** UI 2.0 / User Mgmt.

HASHSTAX: TORTILLA RELEASE KEY FEATURES SECURELY INTEGRATE IOT DEVICES IN LOCAL IOTA TANGLE



Example: Car mileage verification

CAR DATA SIMULATION

Generate car data from an OBD2 or CAN-BUS simulator.



SIGN MILEAGE WITH CAR ID

Sign data with Riddle & Code hardware on a Raspberry Pl.



SAVE MILEAGE IN BLOCKCHAIN

Save data in an a <u>private</u> IOTA tangle via HashstaX software.



DEVELOP A DAPP

Develop a decentral application that solves customer problems.





HASHSTAX KEY FEATURE: SECURE IOT DEVICE INTEGRATION

- Integrate IoT devices with HashstaX light clients.
- Secure IoT devices with Riddle & Code hardware modules.



HASHSTAX KEY FEATURE: SETUP ON YOUR OWN SERVERS

- Keep the ownership of your data & enable onsite data control.
- Choose the location of your nodes to enable performance increases (e.g. latency reduction).

HASHSTAX: TORTILLA RELEASE KEY FEATURES ACCESS SENSORS & DEVELOP DAPPS WITH SIMPLE APIS



Example: Car-related use case

CAR DATA SIMULATION

Generate car data from an OBD2 or CAN-BUS simulator.



SIGN MILEAGE WITH CAR ID

Sign data with Riddle & Code hardware on a Raspberry PI.



SAVE MILEAGE IN BLOCKCHAIN

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DEVELOP A DAPP

Develop a decentral application that solves customer problems.





HASHSTAX KEY FEATURE: SECURLY ACCESS CAR SENSORS

- Sensors can be connected securely to IOT devices.
- Securely connecting the data of many sensors enables entirely new use cases.



HASHSTAX KEY FEATURE: REST API-BASED DEVELOPMENT

- With our simple Rest-APIs you can rapidly develop dAPPs.
- Actually no DLT-based knowledge is neded.

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HASHSTAX QUICK GUIDE



HOW TO USE HASHSTAX?

Quick guide to use hashstax

1. LOGIN TO "DAHOAM HACKATHON"



2. SELECT THE IOTA TESTNET SETUP



3. START CODING VIA SIMPLE APIS



RELEVANT LINKS:

- Website: https://hashstax.eu/
- HashstaX web interface: https://ui.hashstax.eu/#/
- Explanatory video: https://youtu.be/fcCmBxCFKKk

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RIDDLE & CODE QUICK GUIDE

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1. TWIN OF THINGS CHALLENGE:



CREATE A RESELLING PLATFORM FOR USED CARS

Challenge: Create a car reselling platform for used vehicles which verifies the mileage & the identity of a car

CAR DATA SIMULATION

Generate mileage data from an OBD2 or CAN-BUS simulator.



SIGN MILEAGE WITH CAR ID

Sign data with Riddle & Code hardware on PI or Bosch development board.



SAVE MILEAGE IN BLOCKCHAIN

Save data in an on premise IOTA tangle via HashstaX software.



UI TO VERIFY CAR ID & MILEAGE

Create an online reselling platform for cars using Hashstax API calls.







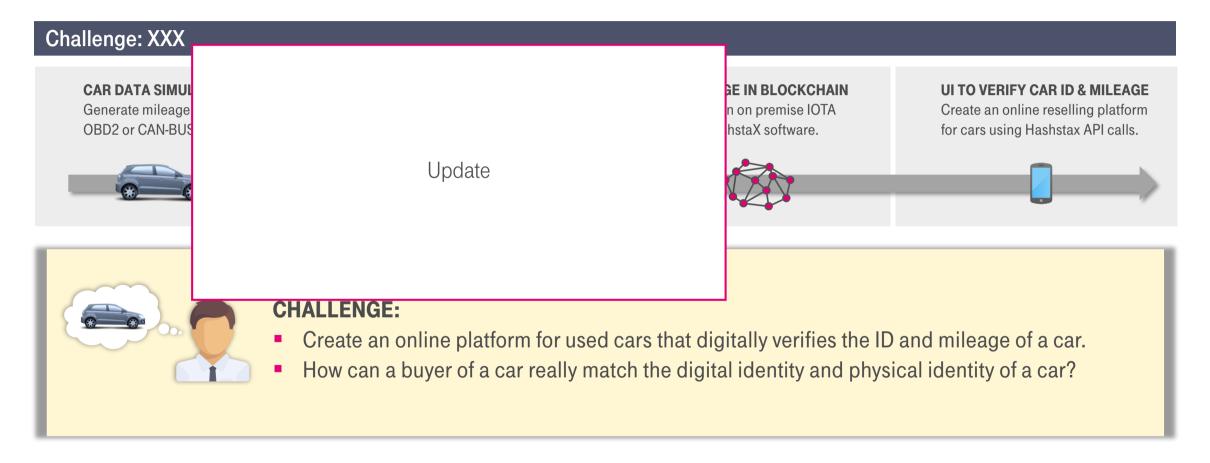
CHALLENGE:

- Create an online platform for used cars that digitally verifies the ID and mileage of a car.
- How can a buyer of a car really match the digital identity and physical identity of a car?

2. DISTRIBUTED IDENTITY CHALLENGE:



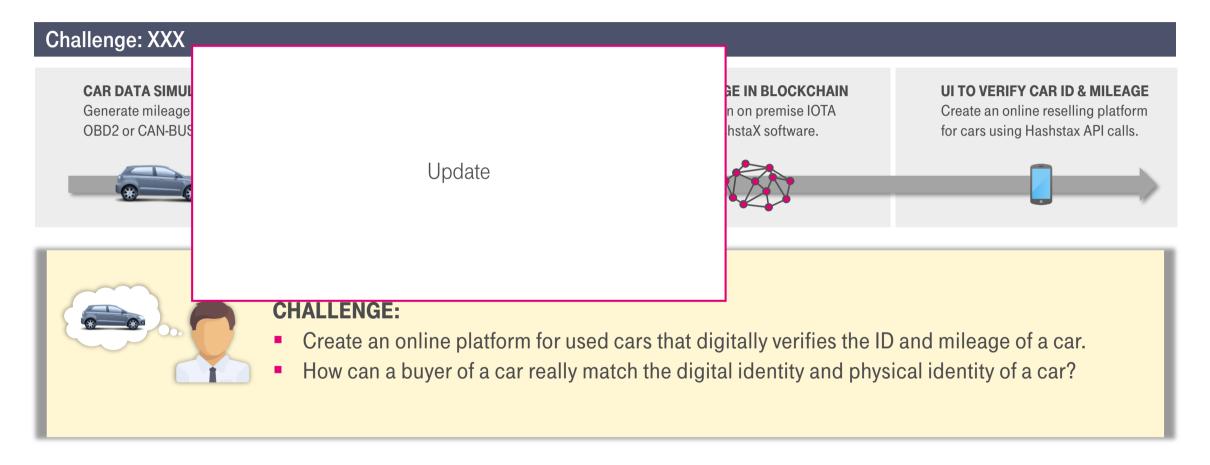
CREATE A RESELLING PLATFORM FOR USED CARS



3. INTEROPERABILITY CHALLENGE:



CREATE A HASHSTAX ADAPTOR FOR BIGCHAIN DB (ON DEVICE)



4. SMART CAR DATA CHALLENGE:



DETECT THE STATE OF AN ENGINE USING DLTS & AI

Challenge: Determine the state of a car's engine by analyzing its performance data and employing Al

CAR DATA SIMULATION

Generate car data from an OBD2 or CAN-BUS simulator.



SAVE DATA IN BLOCKCHAIN

Store data in BigchainDB (on premise) via HashstaX software.



ANALYZE THE CAR DATA

Analyze the car data using open artificial intelligence.



DETERMINE ENGINE'S STATE

Find an approach to determine the engine's state / performance.





CHALLENGE:

- Save OBD2/Can bus data immutably in the BigchainDB Blockchain.
- Subsequently apply AI to determine the state of the car's engine.