



SAP
Innovation
Awards 2019



SAP Innovation Awards 2019 Entry Pitch Deck

BEAST : Blockchain enabled Track and Trace Solution for
Automobile Industry

Certified Product of SAP Co-Innovation Program

Intelizest Consulting Pvt Ltd



Blockchain enabled Track and Trace solution for Automobile Industry

Intelizest Consulting Private Ltd



“Quote”

“Vehicle traceability solutions, effective product recall and warranty claims using Blockchain technology for the entire automobile industry supply chain”

Prabhu Karuppasamy,
CTO,

Intelizest Consulting
Pvt Ltd.

Challenge

The automobile industry faces challenges due to counterfeit parts, vehicle traceability in supply chain, Product recall, Warranty claims. These lead to the high transactional costs and over recalls affecting the brand image and disrupting the system

Solution

Intelizest’s Blockchain powered supply chain solution provides a definite mechanism to mitigate the pain points of automotive industry and helps in digital transformation of Global Automobile industry for the key business areas across the supply chain

Outcome

High Governance (full life cycle of the product), Pinpoint diverted goods, Reduced transactional costs, Seamless integration, and Enhanced security process

>25% reduction in overall lead time in the supply chain from components procurement to Vehicle delivery to the customer

>30% improved process efficiency for the customer in Product recalls and warranty claims processes

20% reduction in transaction costs of third parties involved in Automobile supply chain as the Blockchain governs the process



Partner Information

Intelizest Consulting Private Limited

Solution Demonstration and POC for the identified use case



Intelizest has helped TAFE understand the benefits of blockchain solutions for their pain areas in the supply chain through product demonstration. Intelizest worked along with customer to identify POC scenarios to realize the impact in the business process.

TAFE is planning to sign up for a POC of Intelizest's BEAST application built on SAP Leonardo's Blockchain platform as the next step for one of their plants.



Business Challenge & Objectives

Business Challenge: Customer faces challenges due to non-availability of Track and Trace in full life cycle of vehicle in their current system which leads to counterfeit parts use, disputes with business partners, high transactional costs, improper visibility/control during product recall, disputes during warranty claims and these ultimately reflects brand image.

Product Objective: The Objective of BEAST is to integrate the innovative SAP Leonarado's Blockchain technology with current systems of TAFE and their business partners(ECC, VMS, DBM.etc) through API's. This will enable the manufacturer(TAFE) to govern the transactions and visibility across the supply chain process starting from components purchase, assembly and entire life cycle of the vehicle using VIN as a primary key along with validation of genuinity of the parts during Warranty claim and Vehicle recall.



Project / Use Case Details

- TAFE use SAP ECC as their baseline system for operations. TAFE's Dealers use SAP-IS-DBM system and suppliers use multiple ERP systems for their business process in the supply chain. These systems are operating in silos and the data exchange between these systems is not happening in real time. Hence TAFE is unable to track the vehicle end-to-end in the supply chain from components procurement to the supplier till the vehicle reaches the customer.
- TAFE had challenges to handle warranty claims which leads to counterfeit parts entering into vehicles during spares replacement.
- TAFE is looking for the solution that would help them to govern the entire supply chain process and handle warranty claims and recalls effectively.
- Intelizest's unique solution using SAP Leonardo's Blockchain technology aids in product traceability and physical parts validation with blockchain data during warranty claim.



Benefits and Outcomes

Business / Social

- Vehicle traceability throughout the supply chain by the customer
- Reduced transactions costs and eliminates third party transactions
- Manufacturer governs the entire supply chain

IT

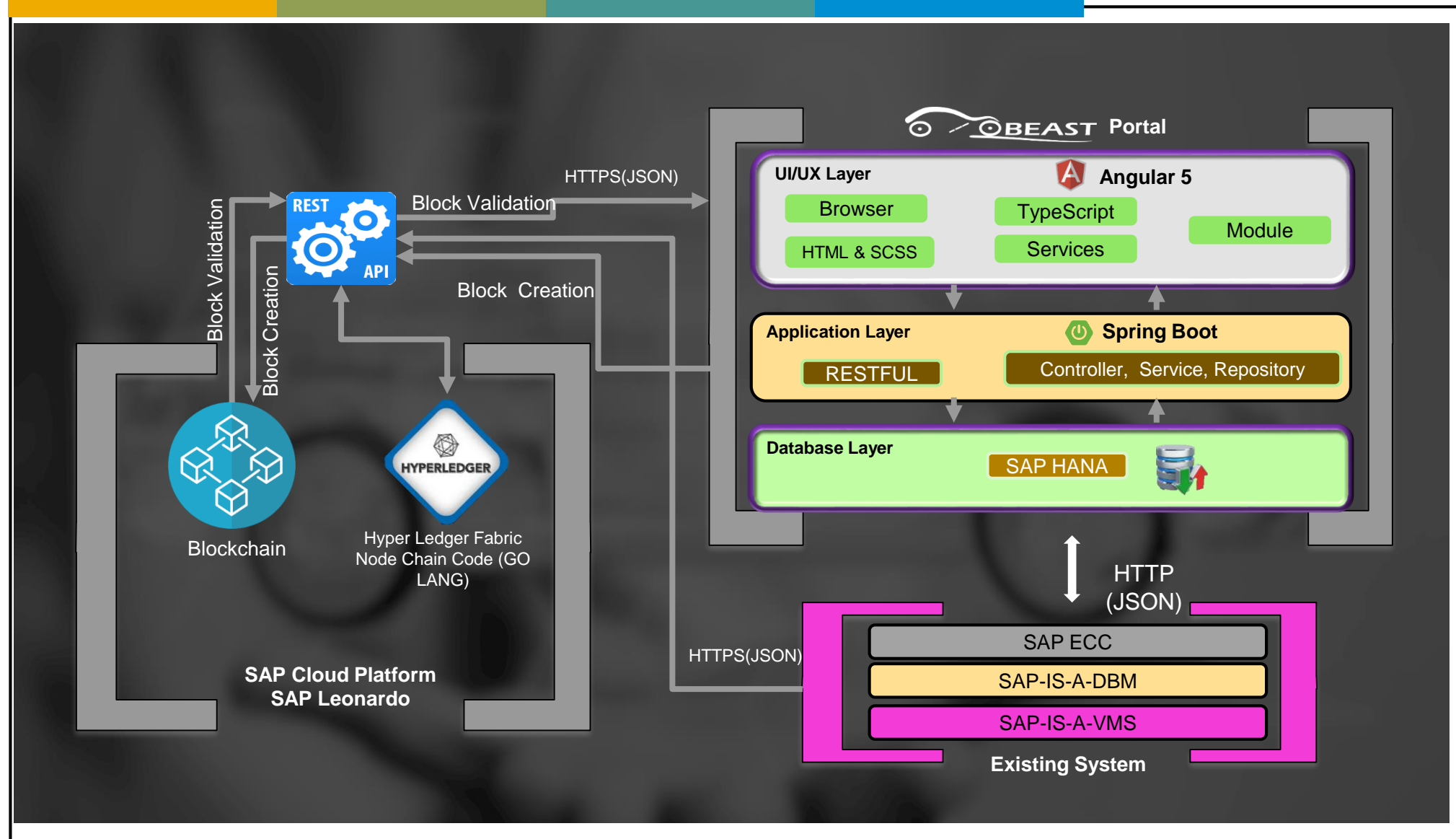
- Seamless integration with business partners ERP systems with built in APIs
- Provision to upload any file format for the suppliers who do not have ERP applications
- BEAST Application integrates with SAP Leonardo's Blockchain through rest APIs (JSON)

Human Empowerment

- Ease the Product recall and Warranty claims process by eliminating manual validations for genuine claims
- Minimal change management required for the implementation and usage of application



Architecture





Deployment

Date of Deployment or POC: January 2019

Number of live users: POC – no live users yet

SAP Technologies Used:

SAP HANA	POC
SAP Leonardo (Blockchain)	POC
SAP Cloud platform	POC

Server Processor: Intel(R) Xeon(R) CPU E5-2686 v4 @ 2.30GHz

Linux Distribution: Runs in SLES 12 Service Pack 1



Emerging Technologies and Use Cases

The following Emerging Technologies and use-cases are part of the project and describe the contribution

	Technology or Use Case	Yes/No	Contribution to Project
1.	Machine Learning / Artificial Intelligence	Yes	Machine Learning is used to analysis the status of Claim and Recall
2.	IoT		
3.	3D printing		
4.	Blockchain	Yes	Blockchain is used in the portal as distributed ledger across involved business partners and used to validate the blockchain data during claim
5.	API Economy / Integrate the Intelligent Enterprise		
6.	Cloud Native / Event Based Architectures		
7.	Extending the digital core with SAP CP / ABAP in SAP CP		
8.	SAP Leonardo Application (extending SAP application, using Industry Innovation Kits or result of Design Thinking workshop)		

