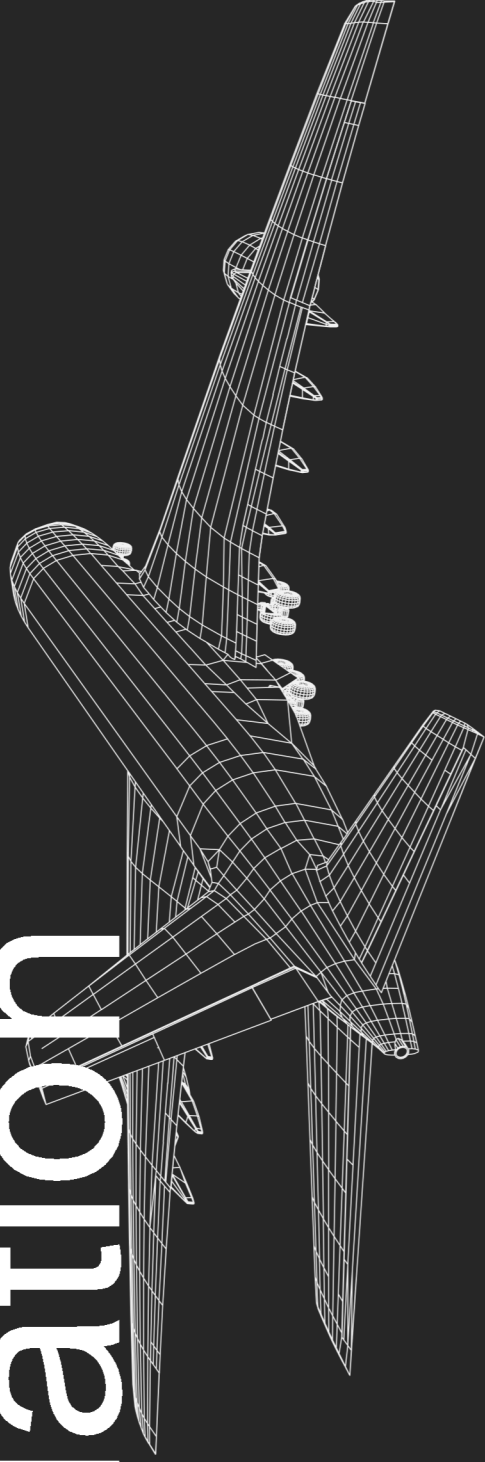


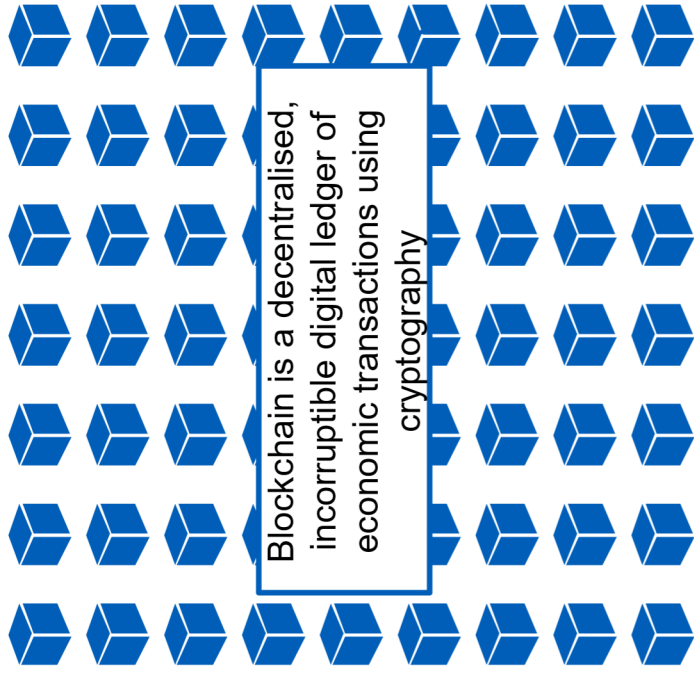


# Blockchain in Aviation



28 June, 2018

# Overview of Blockchain Technology



A transaction is requested



The transaction requested is broadcast via a peer-to-peer network to other computers; nodes



The computers attached to the network validate the user and transaction



With the blockchain, the transaction is complete



Once a block is stored to its capacity, it gets added to the chain

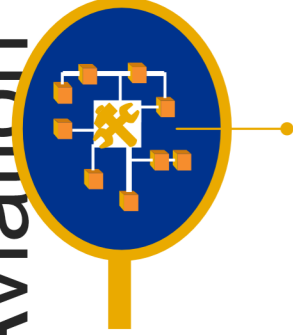


Post validation, the data is mixed with data from other transactions and added to the block

Source: Investopedia, KPMG Analysis

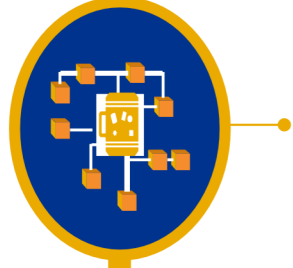


# Immediate applications of Blockchain in Aviation



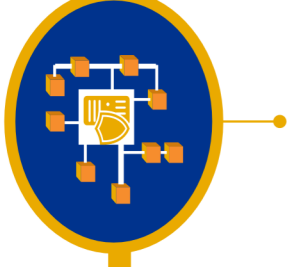
## Aircraft Maintenance

- Blockchain will enable tracking of maintenance records, parts acquisition and flight records
- Boeing is evaluating using blockchain to prevent GPS deceiving for its spares



## Ticketing and Loyalty

- Airlines will be able to gather basic passenger information through data available on the block
- Loyalty points can be tokenised through blockchain for higher perks



## Security

- Flight manifests, passenger records are sensitive information
- Due to cryptography, this data will be accessible only amongst peer network, eliminating fraud

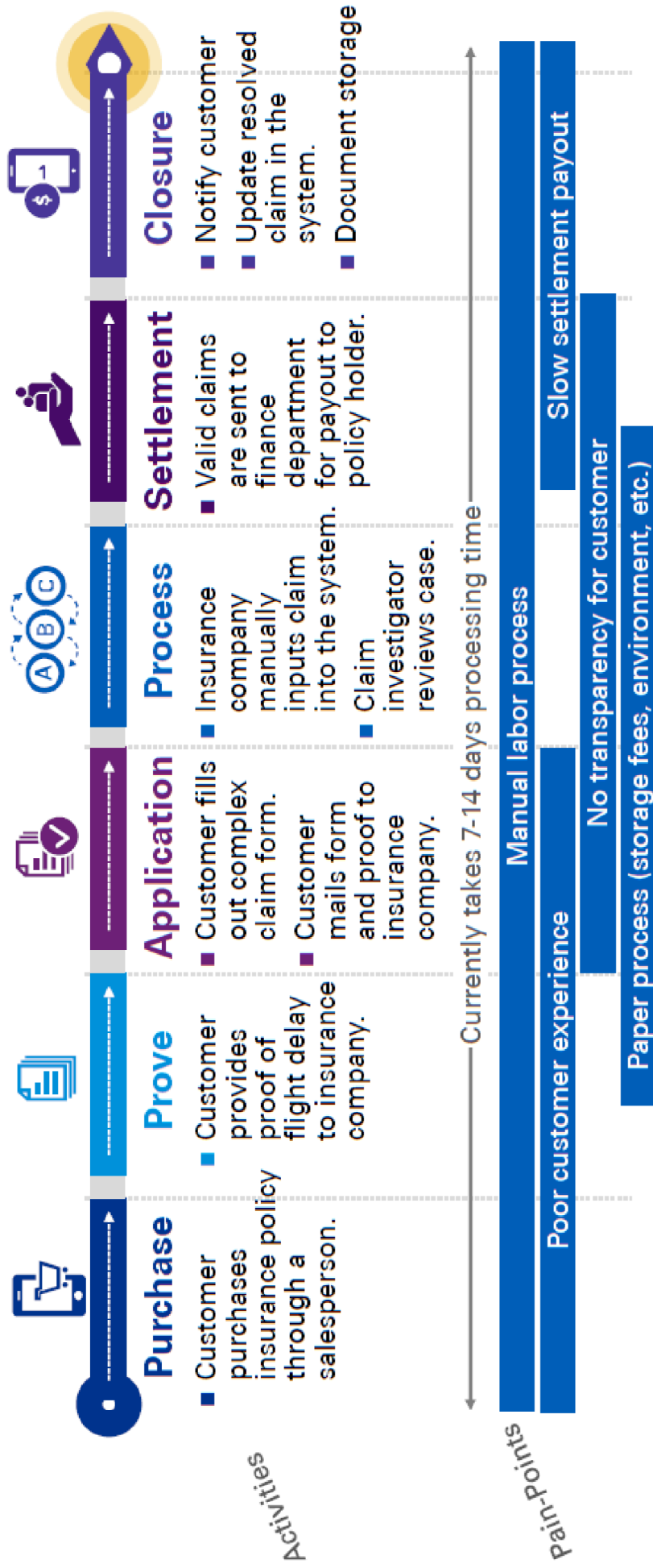


## Payment

- IATA is evaluating using blockchain for a payment system for airlines
- Blockchain will reduce costs and provide protection from disruptions due to a single ledger

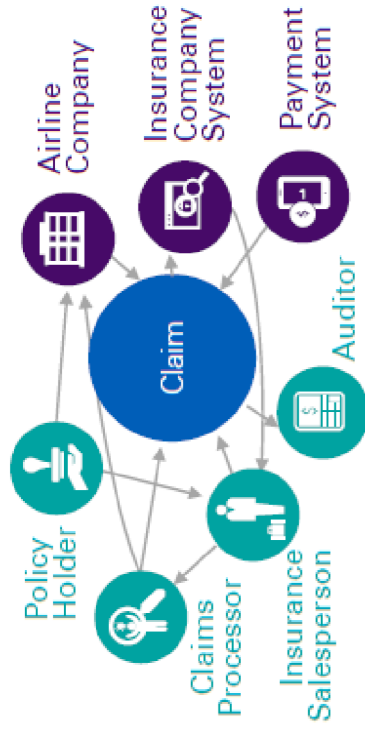
Source: IATA, Accenture, KPMG Analysis

# Current Process - Pain Points



# Blockchain Solution - Before and After

## As to be - Current State

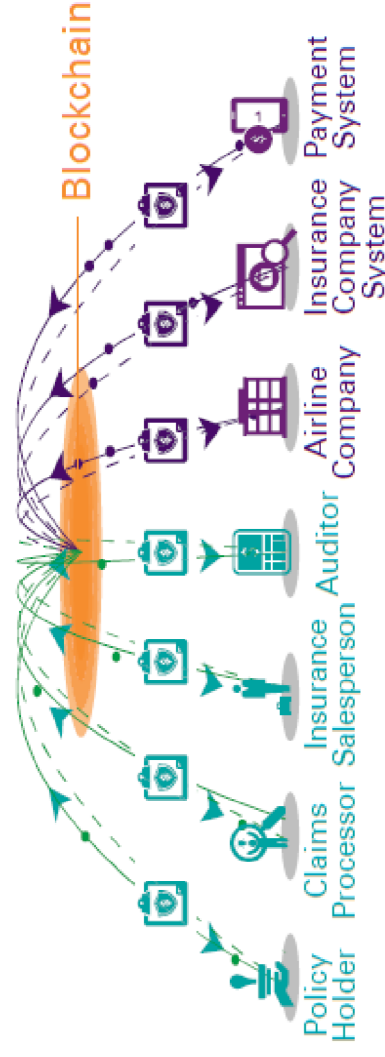


7 - 14 days



- Complex application process.
- Expensive document retention.
- Slow settlement disbursement.
- Intensive manual labor processes.
- Duplicated policy holder data input.
- Troublesome auditing process.

## Future State

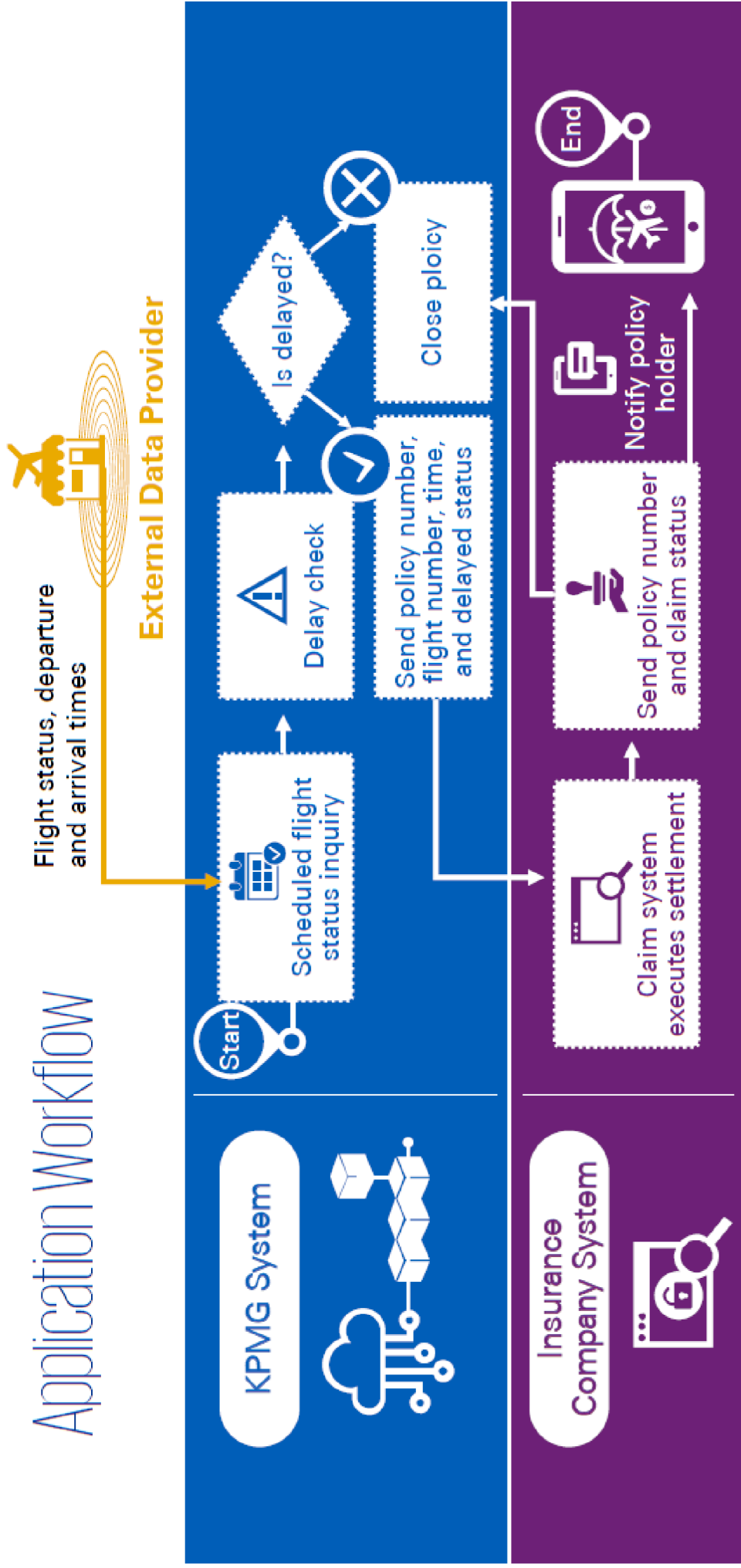


7 - 24 hours



- Smart contracts automate the existing manual labor processes.
- Automated claim checking, verification and settlement allows company to handle larger volumes of customers.
- Immutable data storage on the blockchain ensures trust and provides transparency to both policy holders and external auditors.
- Opportunity to forge alliances with additional partners in the ecosystem and benefit from sharing trusted data sources.

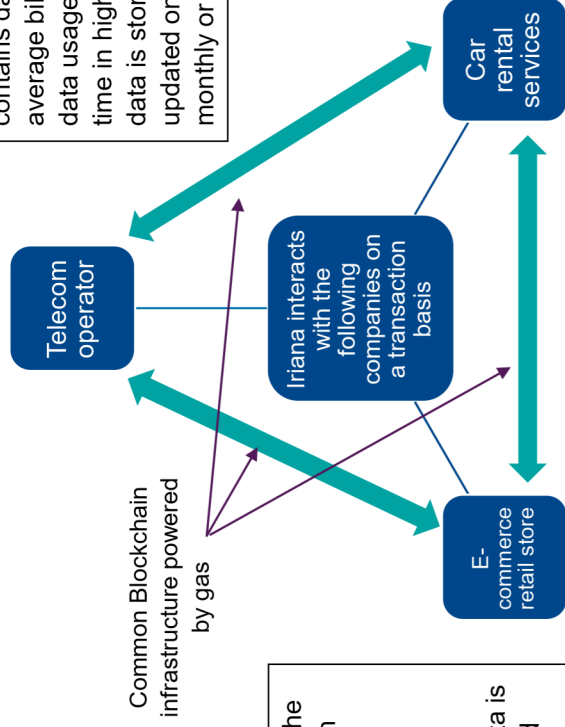
# Application Workflow



# An application of blockchain for data collection, customer insight and monetisation

## Data sharing of customer A

When A interacts for the first time with the telecom operator, a unique token number is generated by the telecom operator which contains data about her usage details, average bill payments per month, average data usage per month, her average dwell time in high street shopping areas etc. This data is stored against her token and is updated on regular intervals example monthly or quarterly.



When A interacts for the first time with the e-commerce retail store, a unique token number is generated by the company which contains data about her average spend per month, the affinity towards brands selected, average wallet size, average transaction value, etc. This data is stored against her token and is updated with every new usage or predefined intervals.

When A interacts for the first time with the car rental services, a unique token number is generated by the car rental services which contains data about her average spend on car rental services per month, the areas (not specific location) she generally picks up or gets dropped off, how many trips she makes to airport in a month, etc. This data is stored against her token and is updated with every new usage or predefined intervals.

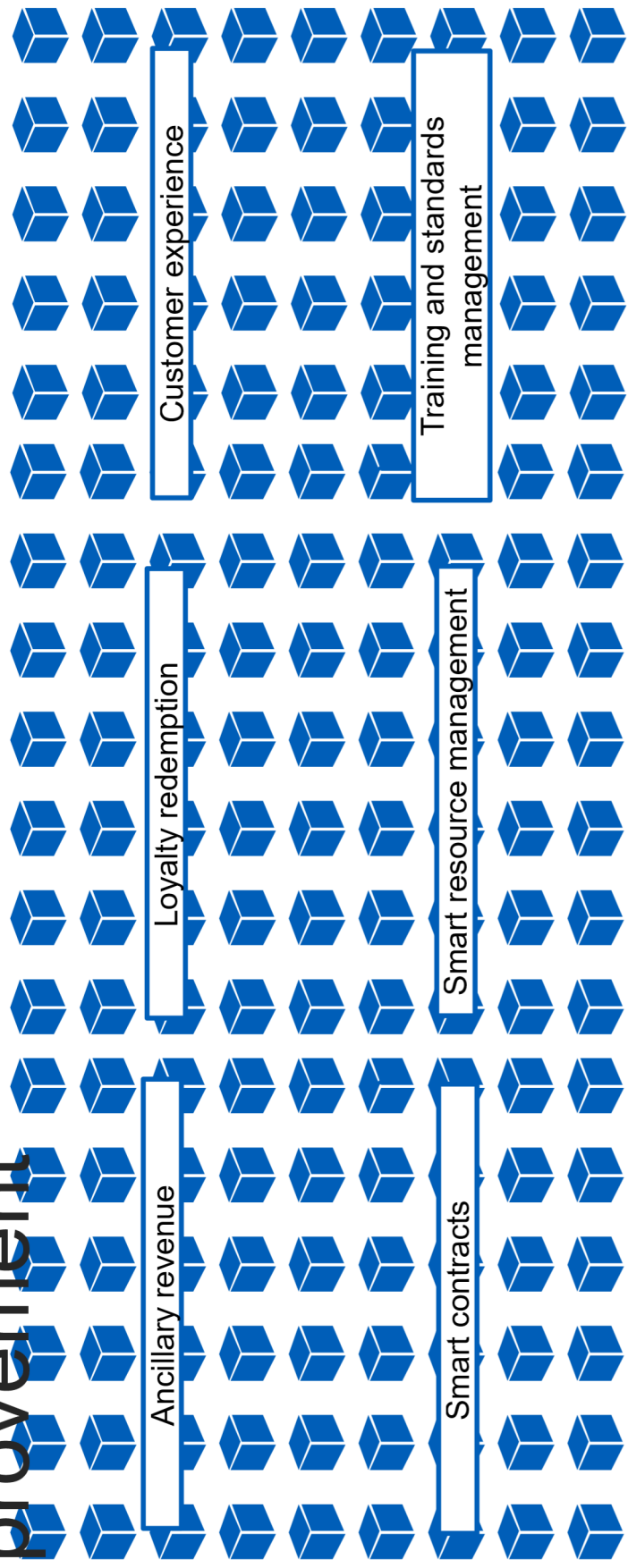
Source: KPMG Analysis



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# Blockchain unlocks a new dimension for revenue generation and operations improvement







# Thank You



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