

# Payments Transformation

Making it Happen



**IBM**®



## **The payments business is the new black**

### **The payments business is seen as highly attractive to Fintechs and Global Digital Brands**

- Participation in the payments business does not require a banking licence
- Payments are seen as a key source of revenue, in which banks have underinvested
- The user interface and initiation application is seen as the game changer

### **Banks want and need deposits: Current Accounts Savings Accounts (CASA)**

- Net Stable Funding Ratio (2018) (deposits preferred to wholesale funding)
- Leverage Ratio of 6% (Liquidity comes from deposits)
- CASA represents a source of fee income, esp. from Business and Institutional clients
- The two levers for deposits are interest rates and payments offerings

### **The vast majority New Zealanders of all ages and businesses have a deposit account for salary and benefits payments, hence the deposit account is**

- the basis of the primary relationship
- enables all types of inwards and outwards payments
- is the source of behavioural information (you are what and where you buy).

### **The payments business is the Banks to lose.**



IBM Payments Transformation Vision consists of four focus areas...

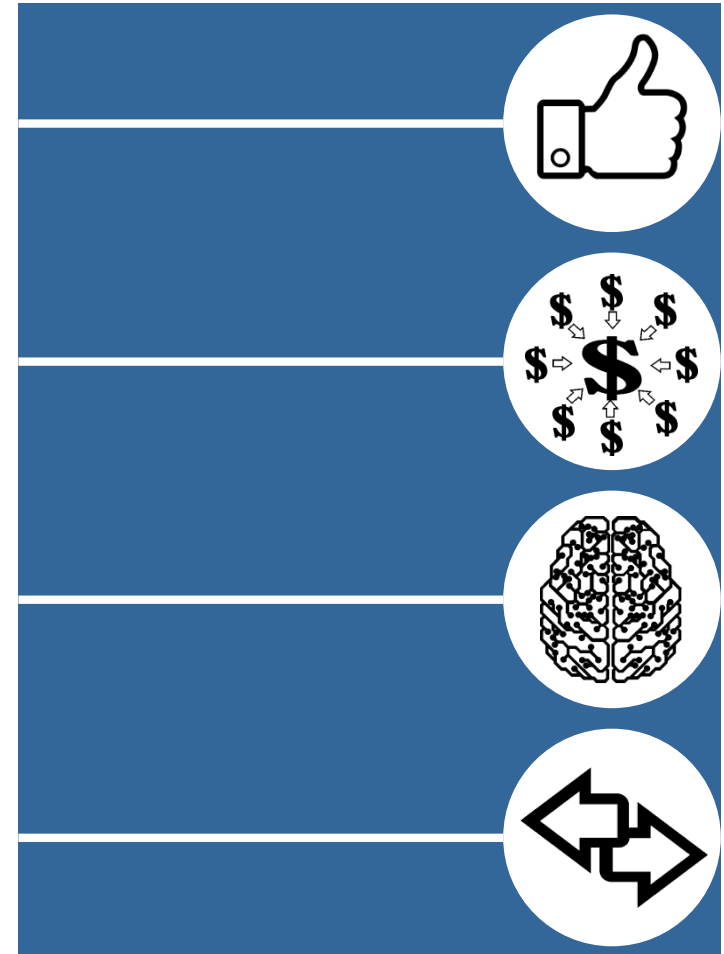


To drive superior customer experiences

To realize payments convergence

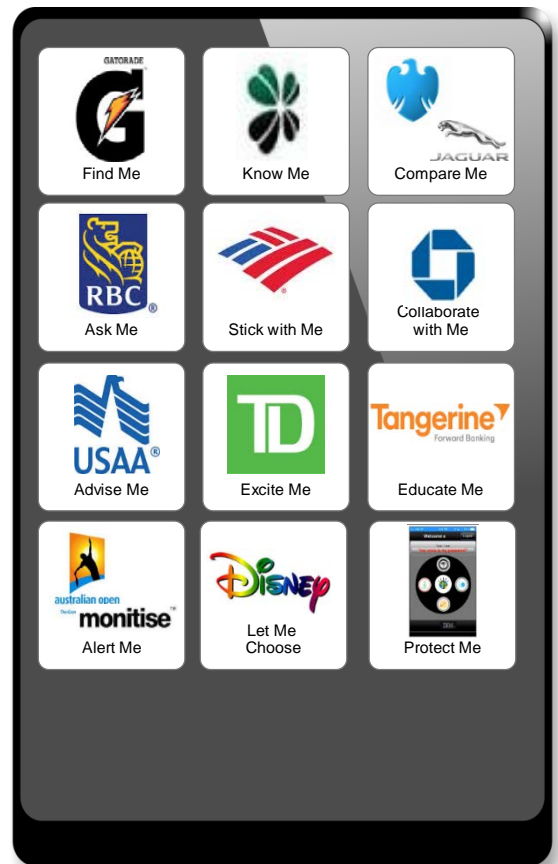
To enable insight through analytics

To position for ecosystem change





# Changing Customer Behaviors and Expectations; Today's Customers demand the best digital experience across all channels

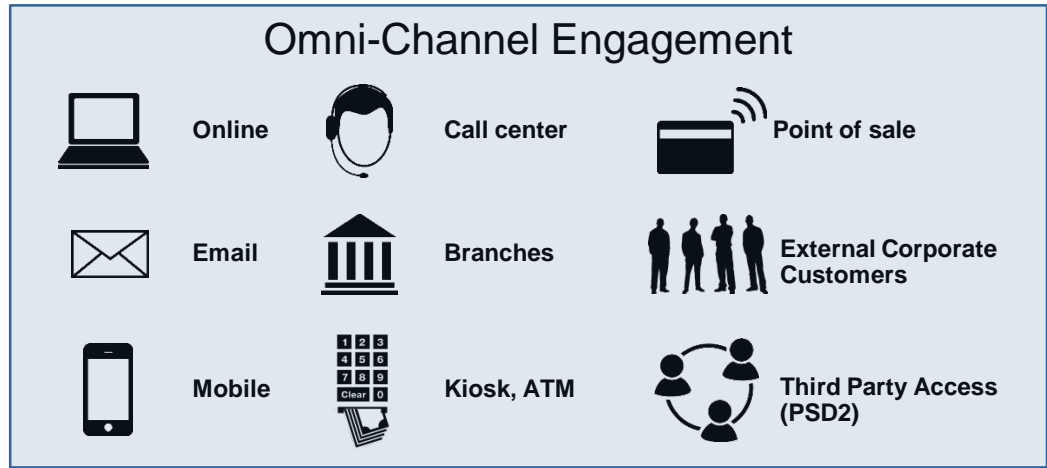


## Customer Experience Focused



Digitally connected customers, small business owners, and institutional leaders want an improved experience, more interaction and a better value proposition

## Omni-Channel Engagement





# Key aspects of payments are converging, enabling simplification and transformation



## **Wholesale and retail payments into electronic payments**

### **Payment types into account based debit:**

- RTGS: RITS and NPP
- Direct Debit
- EFTPOS

### **Payment instruction origination devices and applications:**

- any payment type
- With any digital device and application, e.g. smart phones and wallets

### **Message Standards to ISO 20022**

- Retail and wholesale payments
- Internal and external messaging

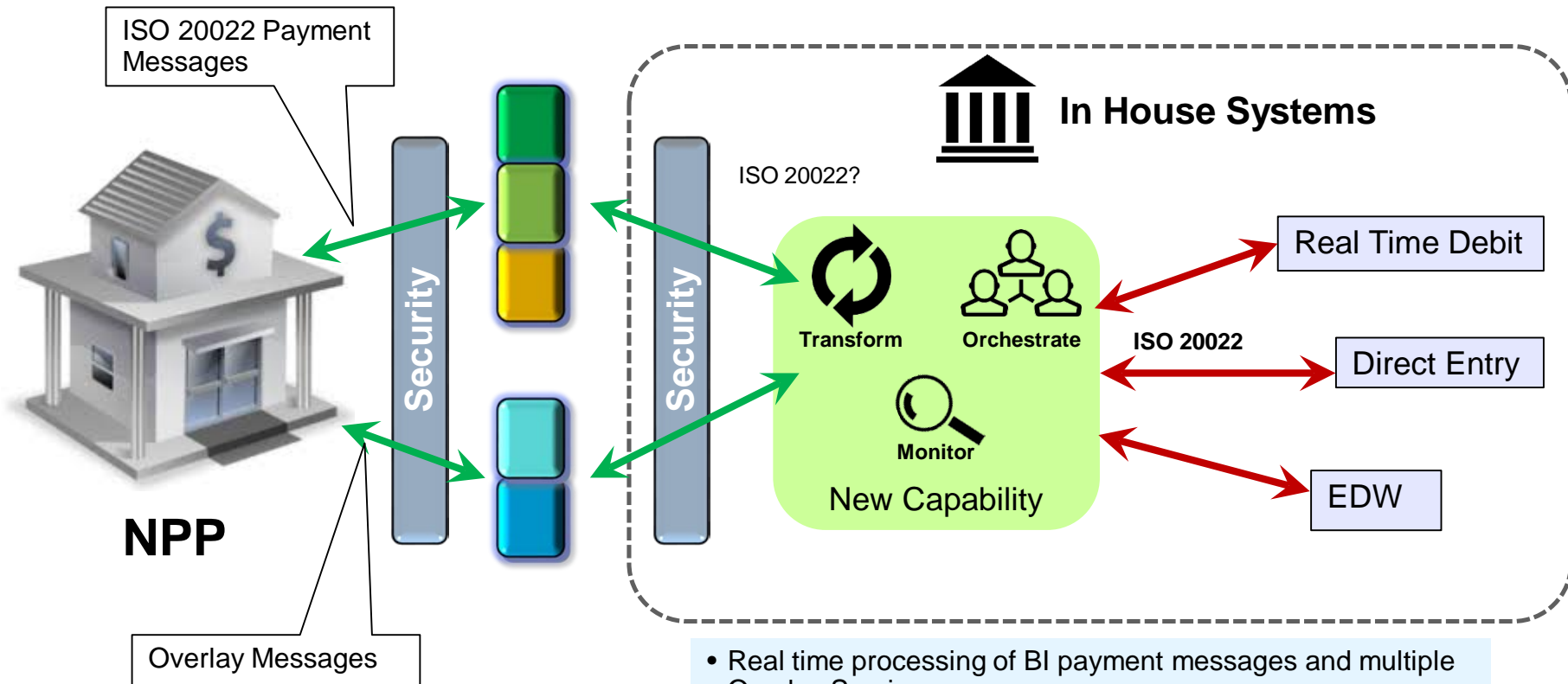
### **Bank processing capabilities for payments:**

- from silos to a single platform
- From multiple disparate processes to common processes

### **Payments analytics:**

- across retail, wholesale and merchant offerings
- channels and segments
- Risk (fraud, liquidity, counterparty), customer and performance

Will ISO 2022 be the canonical message format for internal processing?



- Real time processing of BI payment messages and multiple Overlay Service messages
- NPP real time payments utility to support processing of real time transactions
- Enablement of Core Banking, Enterprise Service Bus, Other Utilities & Channels for real time 24 x 7 transactions



## Retail and Wholesale (Converged) Payments Value Chain

Identification  
authentication

Credit / funds  
availability

Restricted  
party

Processing

Settlement

### Payment initiation

- Remote, central, optimized capture
- Identify theft protection
- Payment type conversion and clearing based on client desire and for optimization
- Persistence of paper and electronic

### Payment interfaces

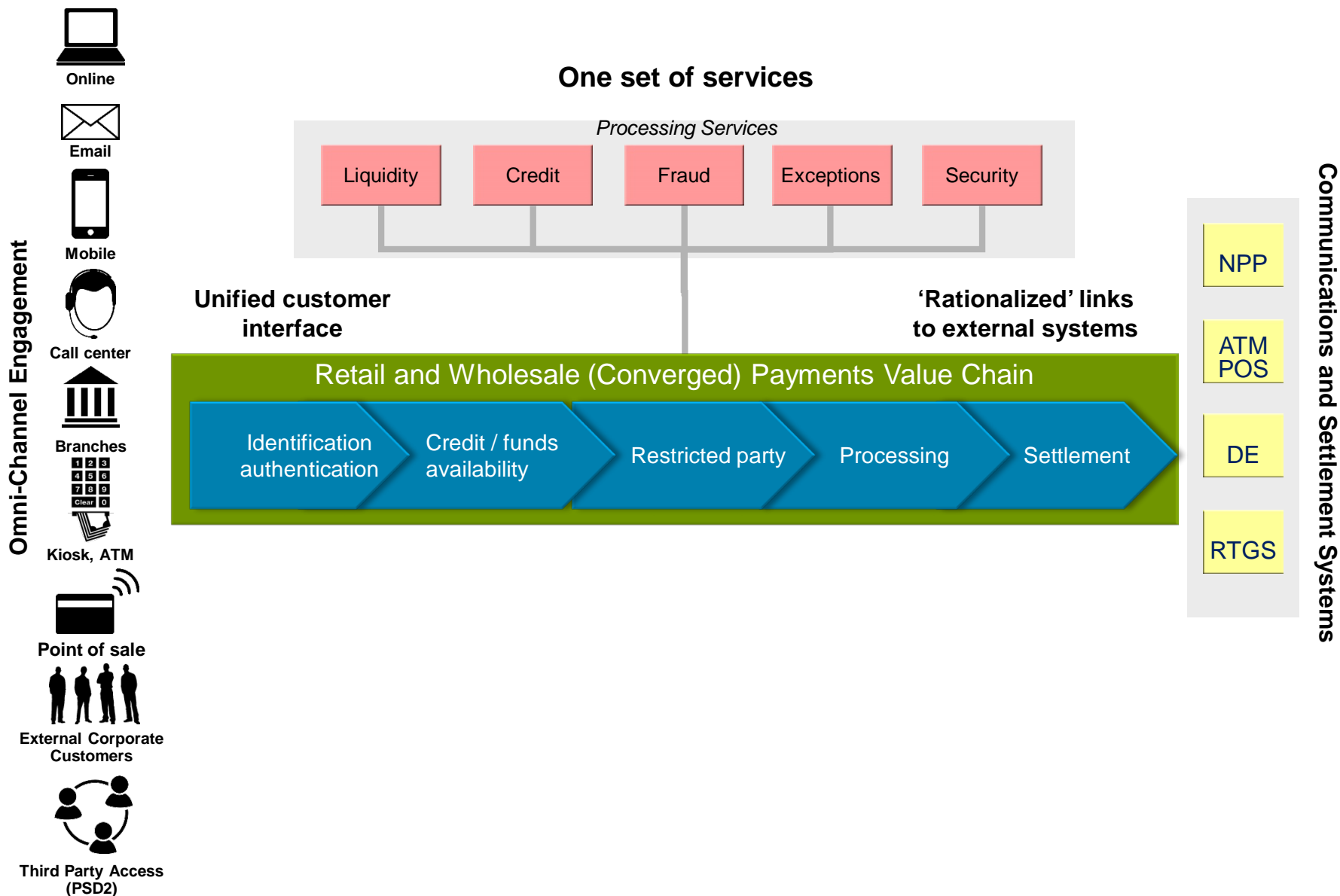
- New and traditional third parties
- Cross border
- Monitoring send, receive, security
- Payment tracking (status, customer reports)

### Payment processing

- Automated, dynamic decisioning for optimum routing based on speed, cost, customer instruction
- Straight through processing – acceleration of traditional day 2 functions, real time information
- Fraud prevention



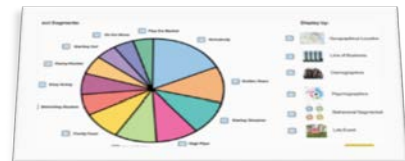
# A Services Oriented Architecture enables convergence and is the foundation for future capabilities



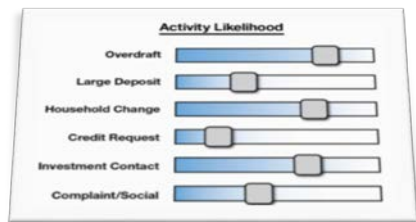




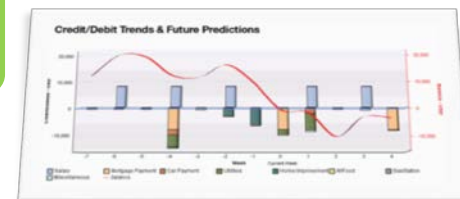
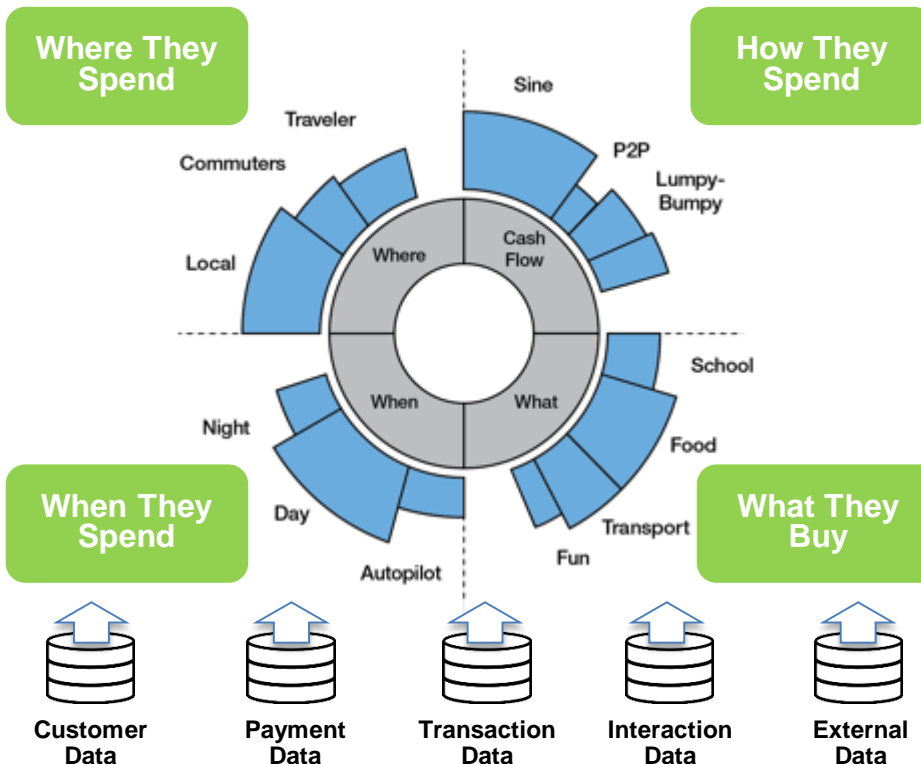
## Use payment and transaction data to better understand customers



Generate segments based on behavior



Predict likelihood of financial activities & churn based on behavior correlations



Predict future life and financial events



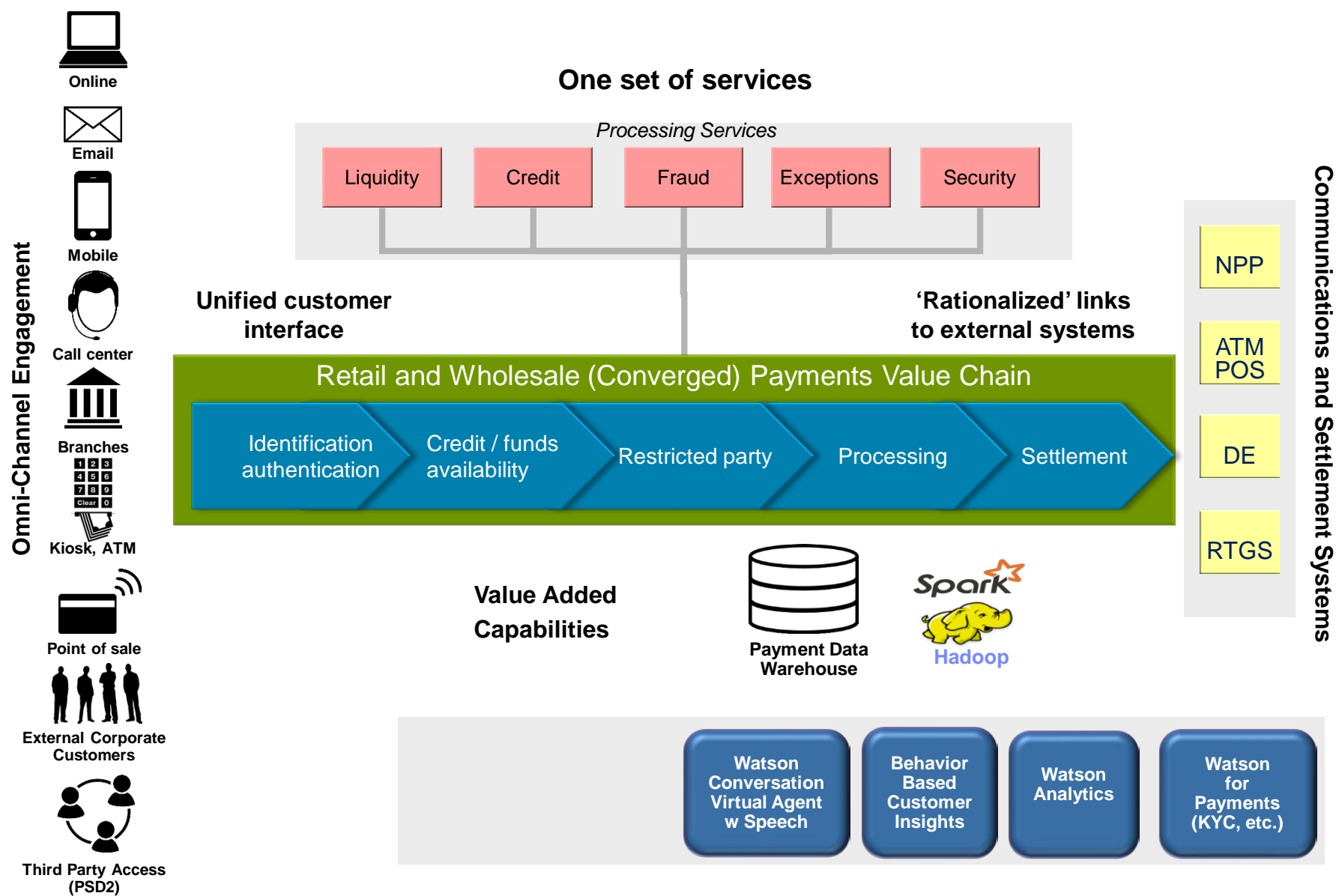
Use insights to drive what is presented to clients

### Benefits

- Improve cross-sell and wallet share
- Reduce attrition
- Generate new revenue streams



# A Services Oriented Architecture enables convergence and is the foundation for future capabilities: data based insight





## Business Networks benefit from connectivity

- Participants are customers, suppliers, banks, partners
- Cross geography & regulatory boundary

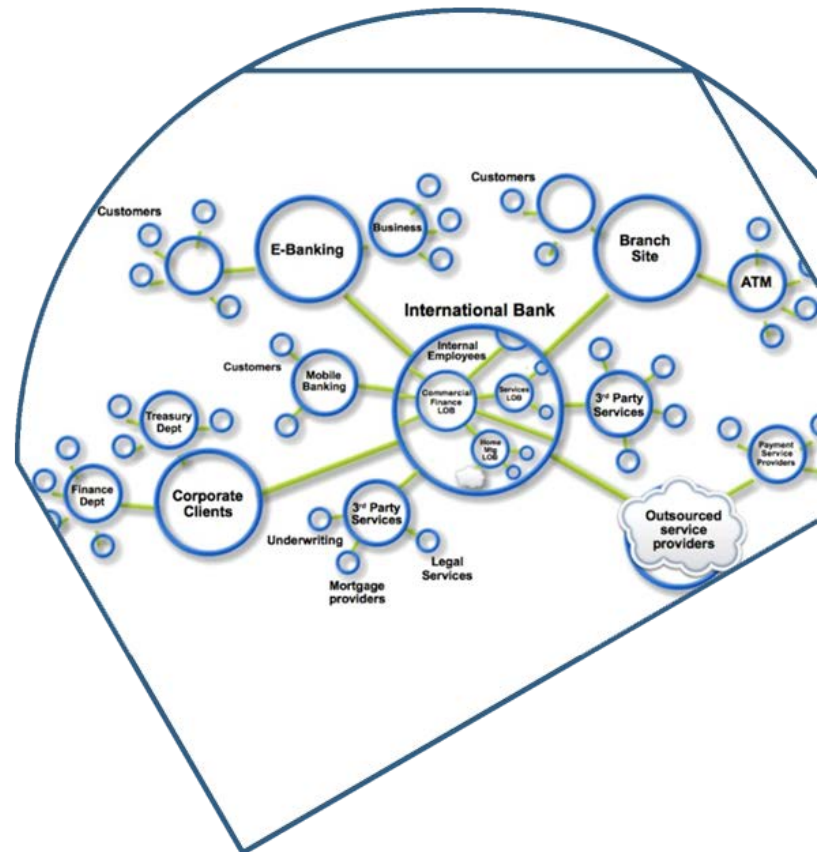
**Wealth is generated by the flow of goods & services across business network in transactions and contracts**

## Markets are central to this process:

- Public (fruit market, car auction), or
- Private (supply chain financing, bonds)

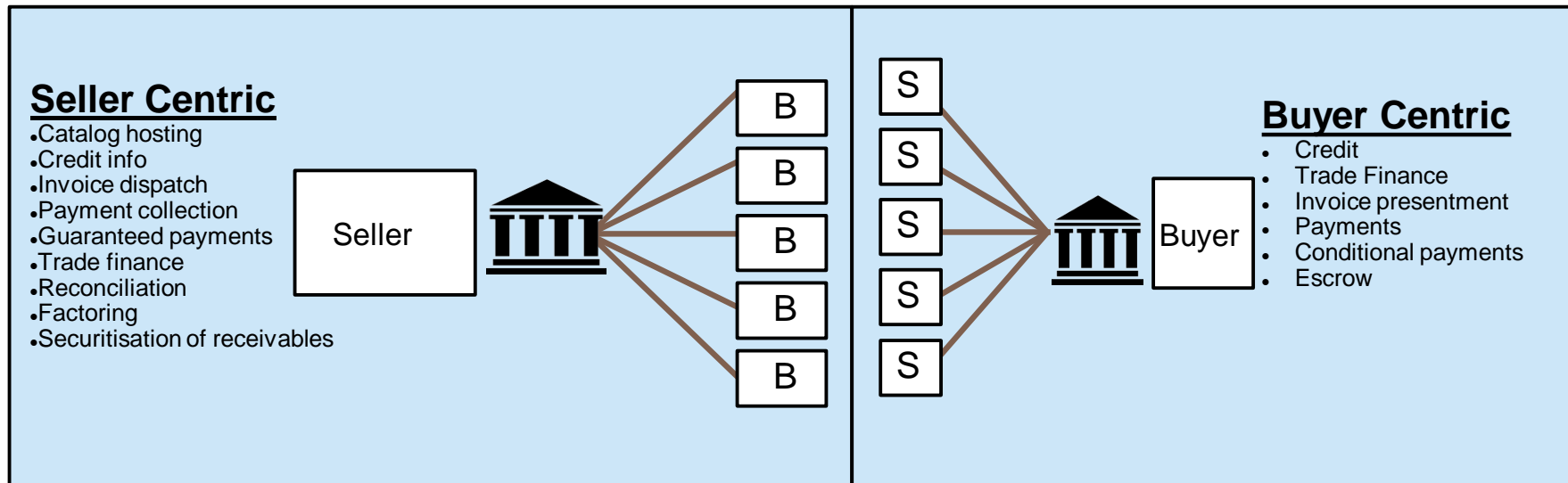
**Successful banks will become an integral part of customers' everyday lives, orchestrating all of the capabilities of the ecosystems on behalf of the customer.**

- Customer ecosystem to cater to a range of customer needs beyond merely traditional banking services
- Partner ecosystem (including fintechs) to extend a bank's range of capabilities and scalability to its operations

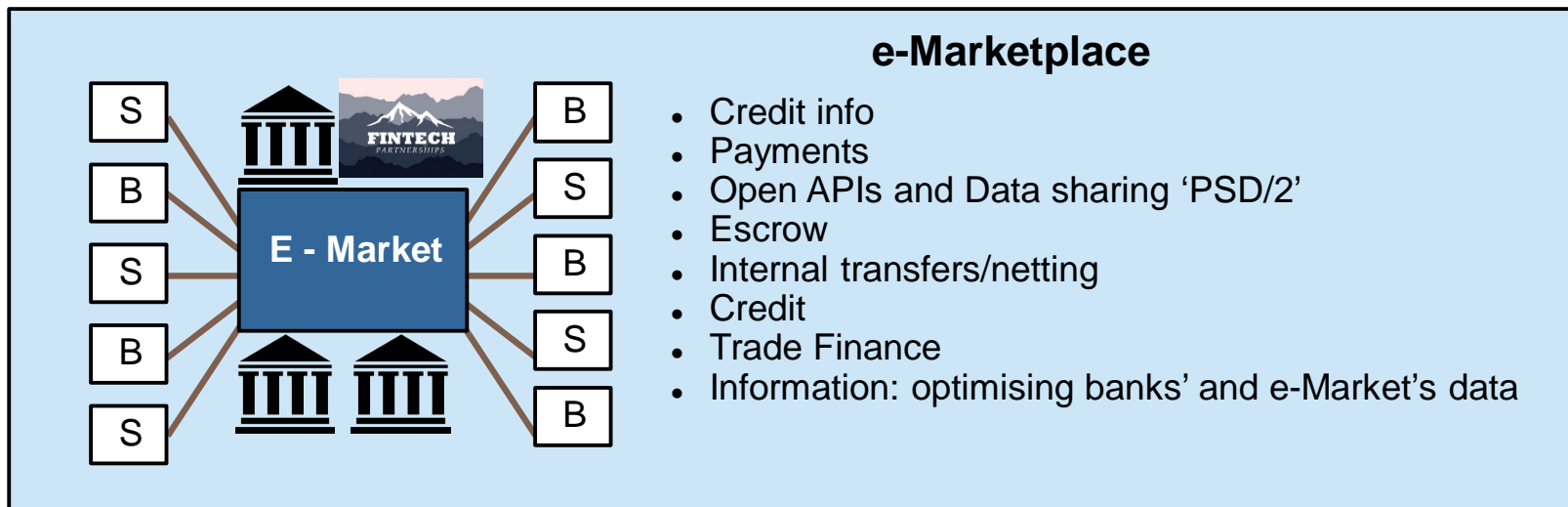




# An e-Marketplace brings together buyers and sellers, plus multiple banks and Fintechs.

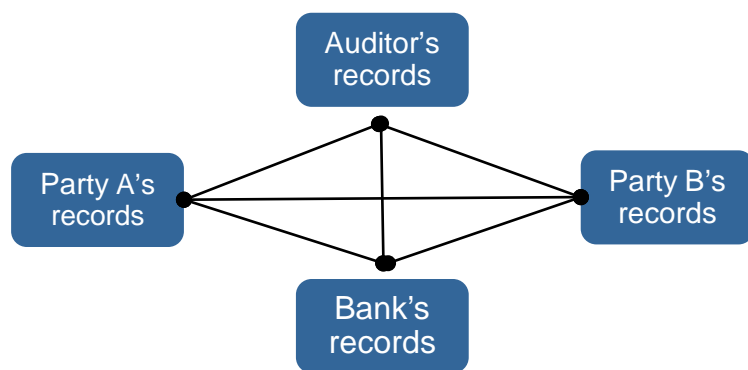


Trust, regulatory reporting, secure document transmission, tracking, insurance, logistics, inspection





Blockchain technology has the potential to radically transform multi-party business networks, enabling significantly faster, less expensive, lower risk transactions and innovative new business models

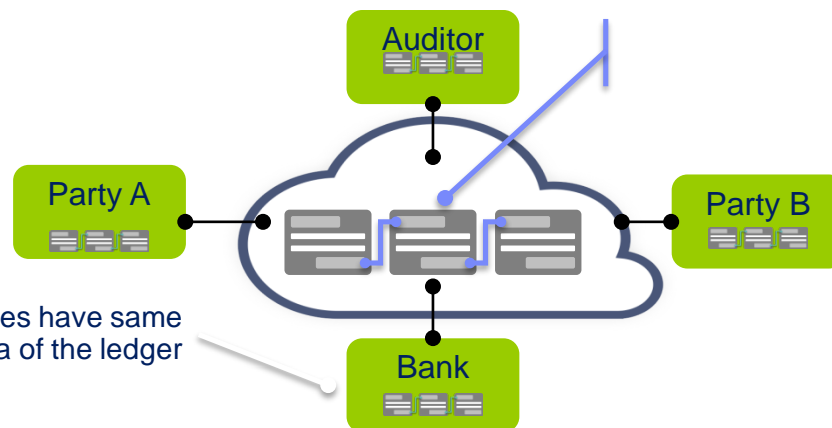


## Inefficient, expensive, vulnerable

- Difficult to maintain a **single** source of truth
- Difficulty to maintain **transparency**
- **Not timely** in delivery or access
- **Business logic implementation linking transactions** can be different between parties
- Can be overly complex due to the evolution and use of older technology.



All parties have same replica of the ledger



## Attributes

- Shared replicated **immutable ledger**
- Digitally signed/encrypted transactions
- **Business logic linking transactions** into business processes
- Automation

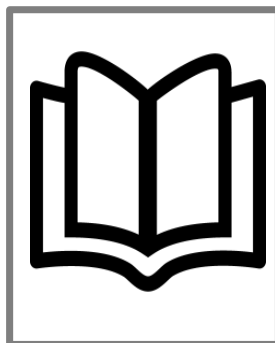
## Types of Use Cases

- Trusted registry of ownership of assets
- Asset transfer
- Smart contracts



## Shared Ledger

Append-only distributed system of record shared across business network

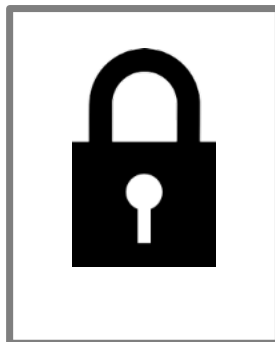


## Smart Contract

Business terms embedded in transaction database & executed with transactions

## Privacy

Ensuring appropriate visibility; transactions are secure, authenticated & verifiable



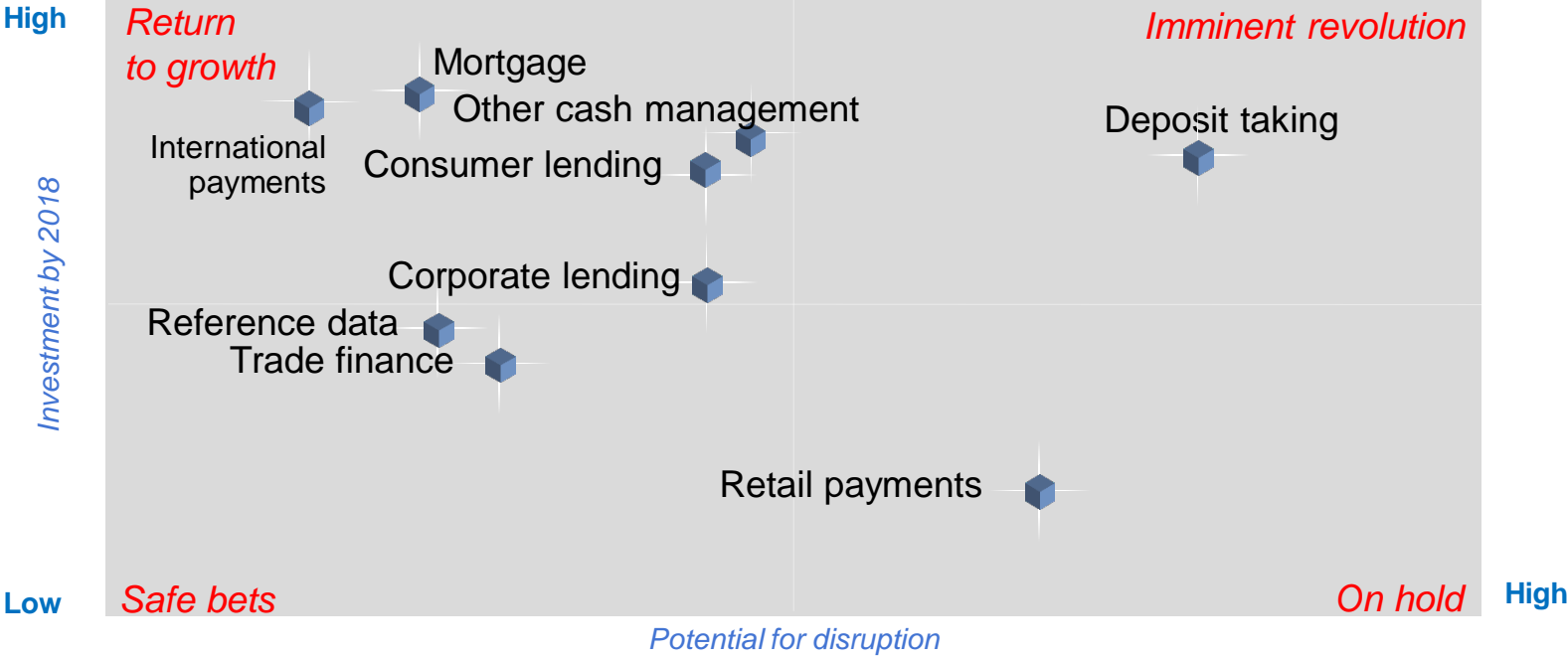
## Consensus

All parties agree to network verified transaction

... Broader participation, lower cost, increased efficiency



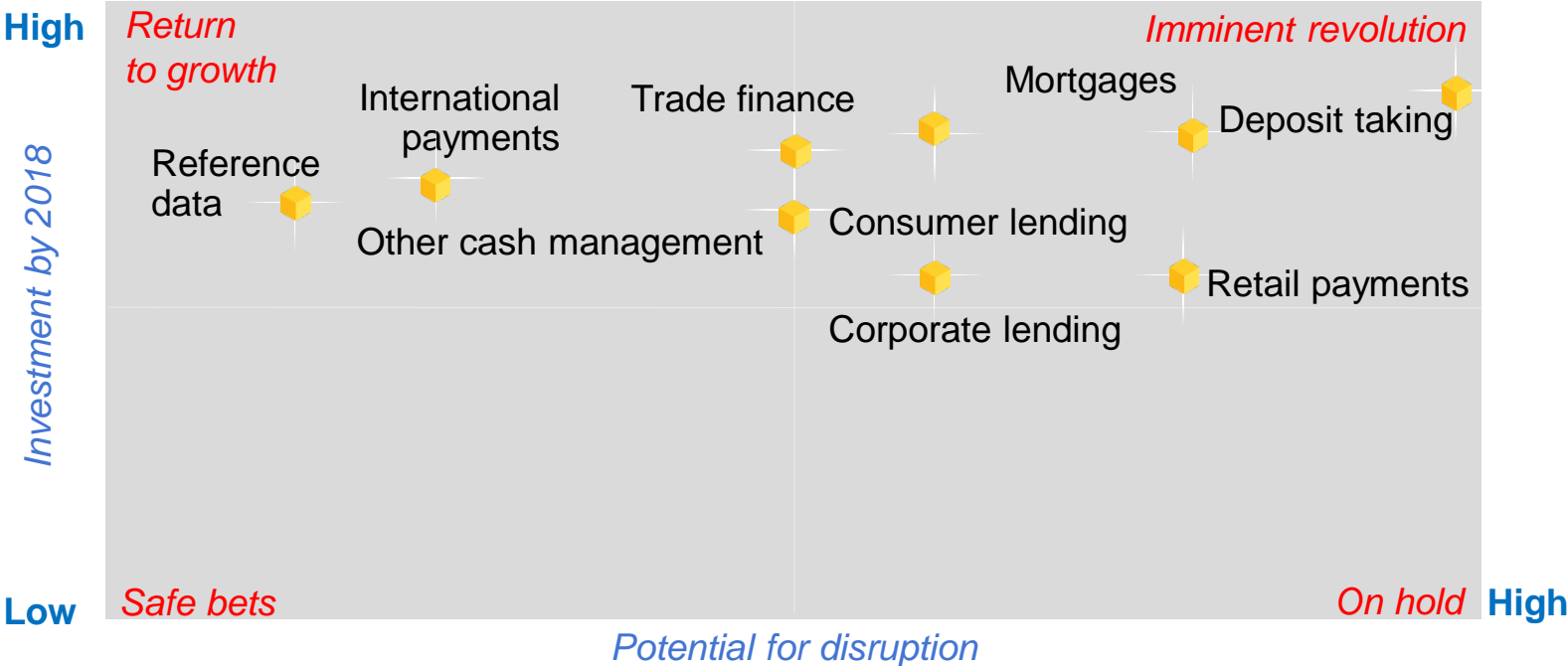
# Most banks are investing for growth rather than preparing for disruption from blockchains



Source: IBM Institute for Business Value analysis



# Trailblazers anticipate the greatest disruption and are defending their turf with significant investments

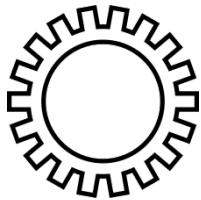


Source: IBM Institute for Business Value analysis





## Implementation



**Trailblazers** are planning to implement blockchain solutions at scale **within a year**, providing lessons that can be used by the mass adopters who will achieve scale between 1 to 3 years

## Partnerships



**Mass adopters** should work on building strong partnerships via consortia and open source technologies **to achieve scale and garner many of the advantages** from blockchains across cost, time, risk, and new business models

## Investment

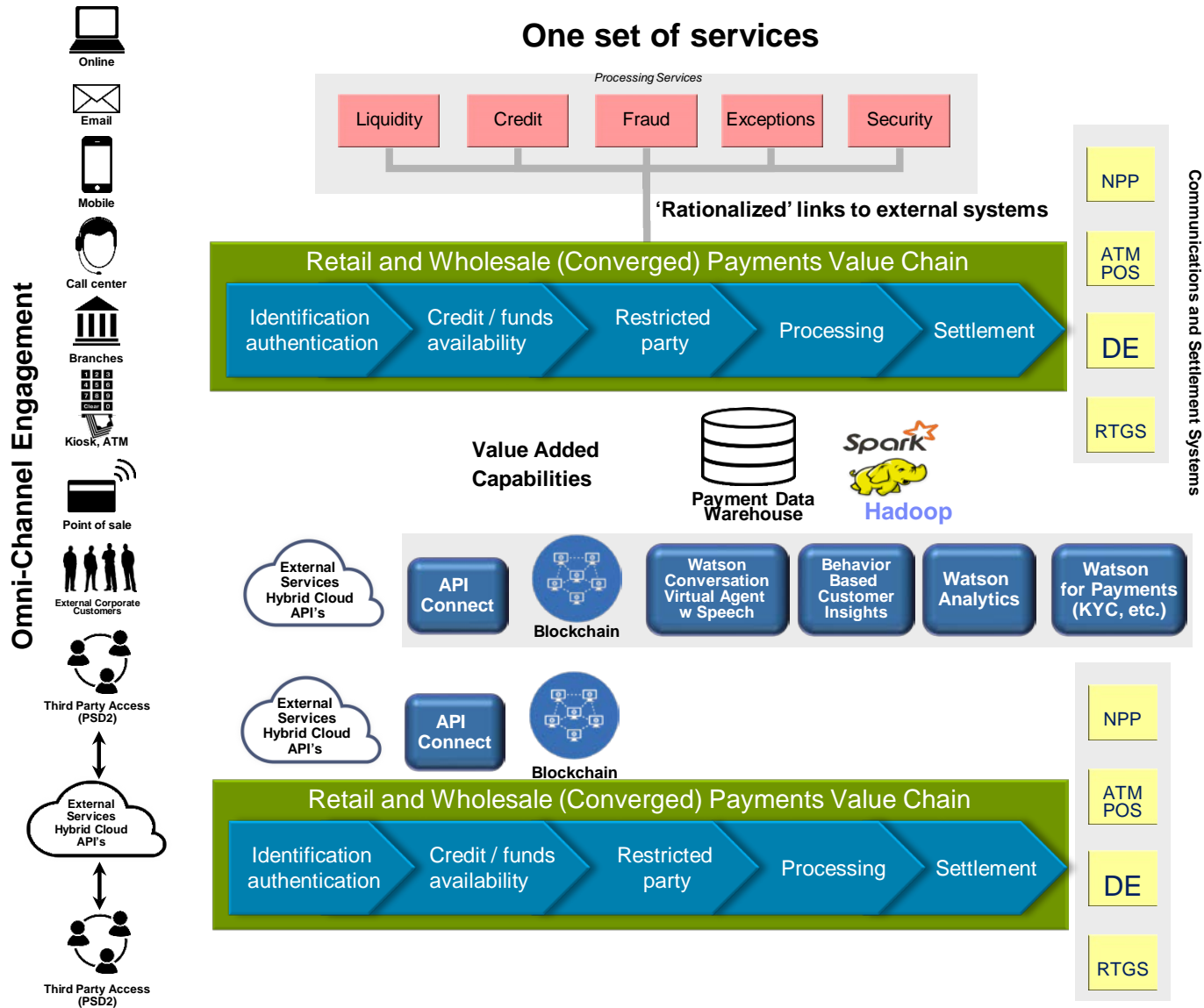


**Banks** should begin by identifying **key POCs in areas that will yield cost/time/risk benefits** then invest and scale in areas that indicate the greatest potential for growth

Source: IBM Institute for Business Value analysis

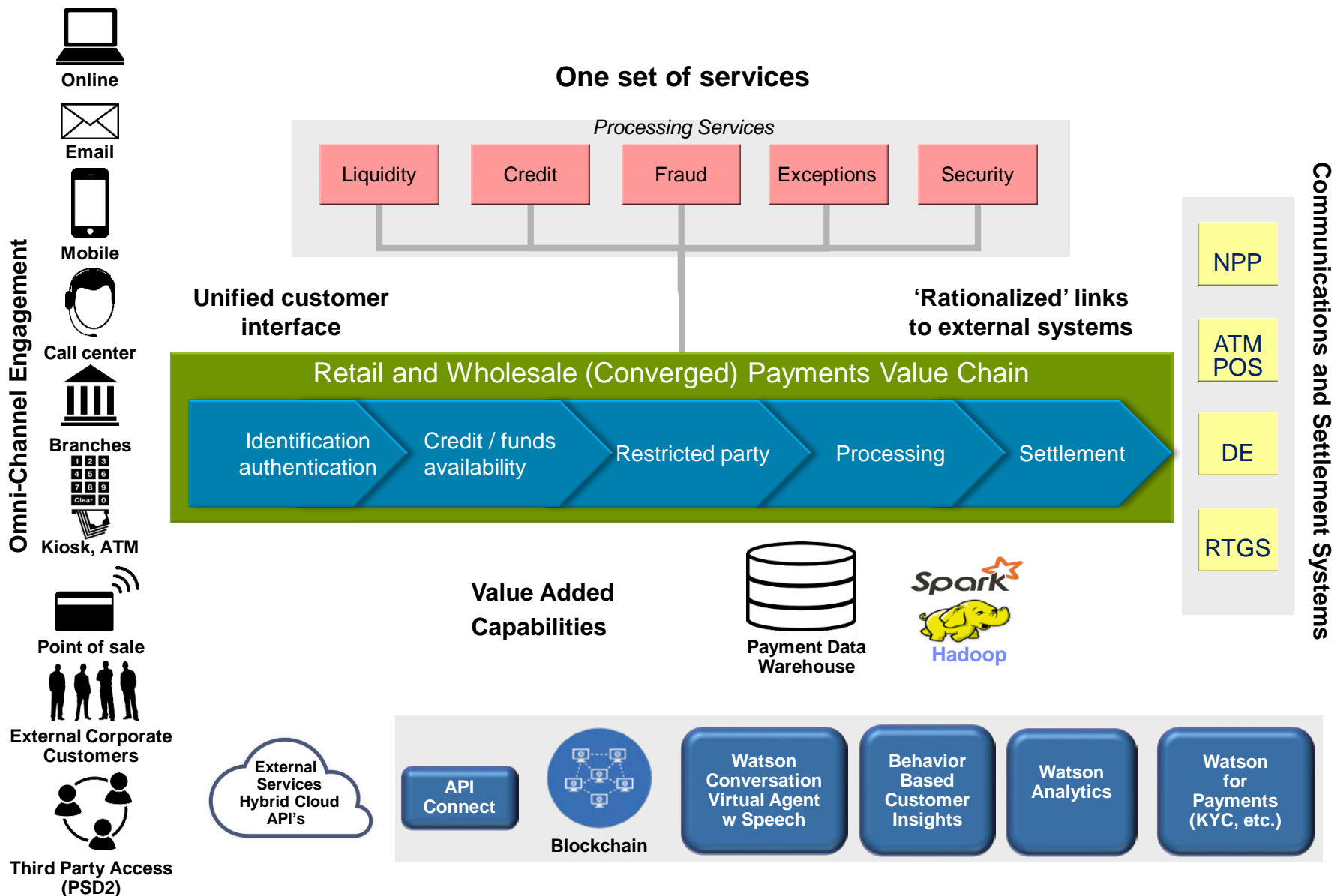


# A Services Oriented Architecture enables convergence and is the foundation for future capabilities: Blockchain





# Bringing it all together: User Experience, SOA convergence, Cognitive and Blockchain





## To drive superior customer experiences

- Creating digital experiences to rival the best Digital Companies
- Extending the digital experience to all channels: omni-channel
- Reducing payment experience friction through Design Thinking
- Delivering self-service payment type management to consumer

## To realize payments convergence

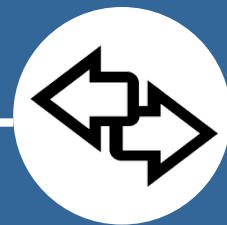
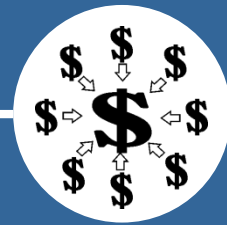
- Adopting ISO 20022 as the payments message format
- Payments Processing all payment types on common rails
- Leveraging common components regardless of payment type

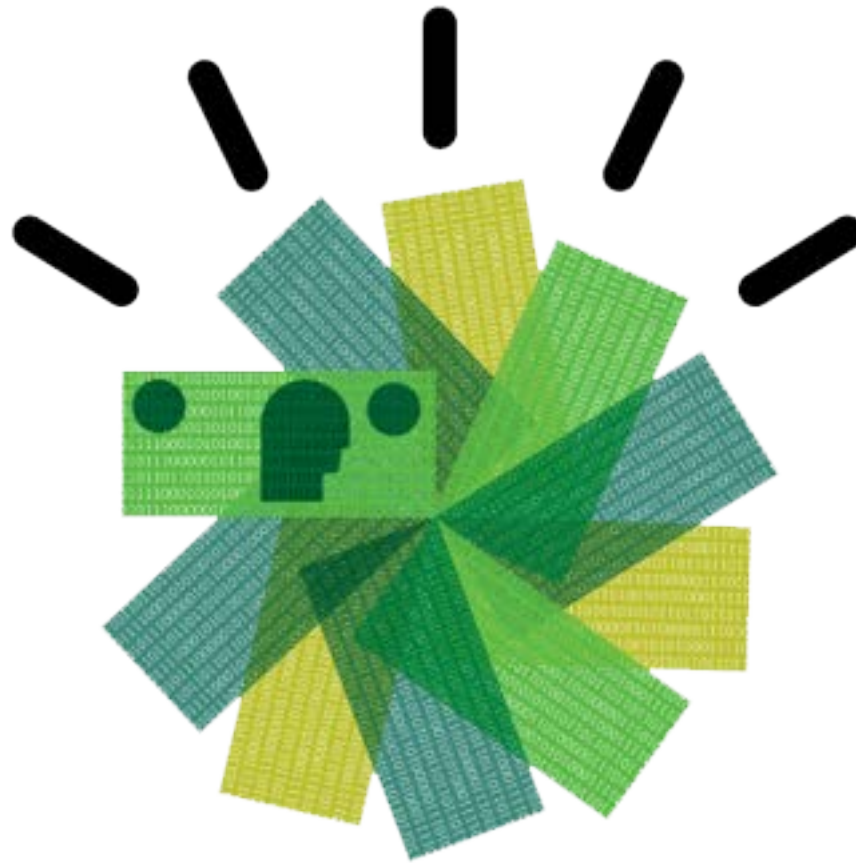
## To enable insight through analytics

- Understanding all customer segments from payments interactions:
- Retail, SME, Corporate Institutional, Merchants
- Enhancing real-time fraud and AML services
- Enhancing liquidity management

## To position for ecosystem change

- Determine sources of friction and opportunities in bank ecosystems
- Understand the implications of the Open API economy for payments in NZ
- Learn about Blockchain: reality and the hype Participate in Consortia, esp. Open Linux Foundation's HyperLedger
- Determine which business networks can be improved with Open APIs and/ or Blockchain
- Engage in POCs and Pilots





# Thank You