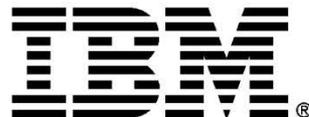


Payments Transformation

Making it Happen



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...

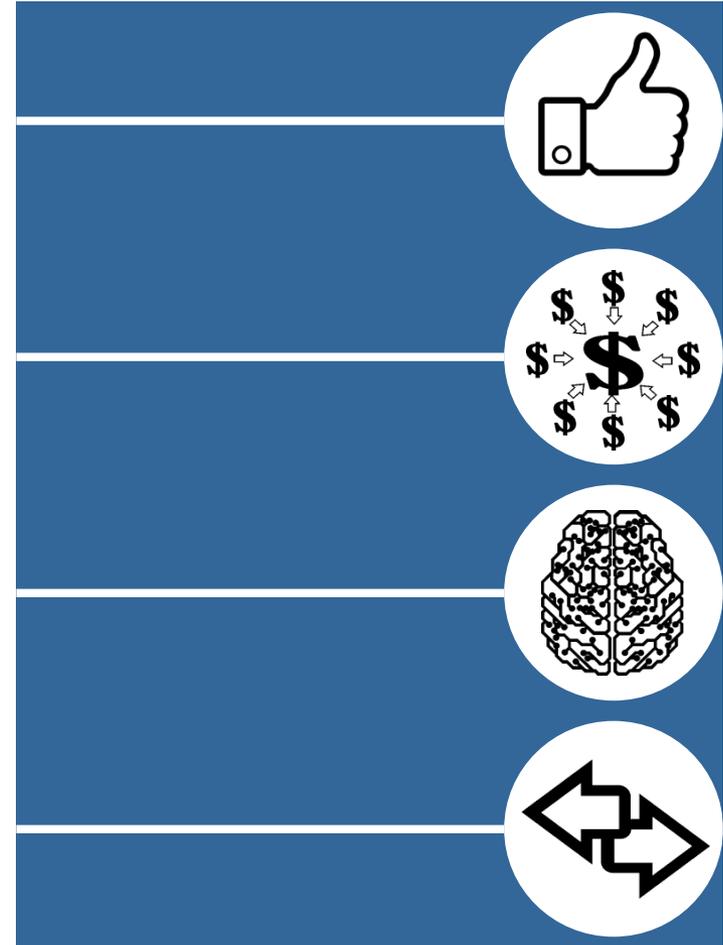


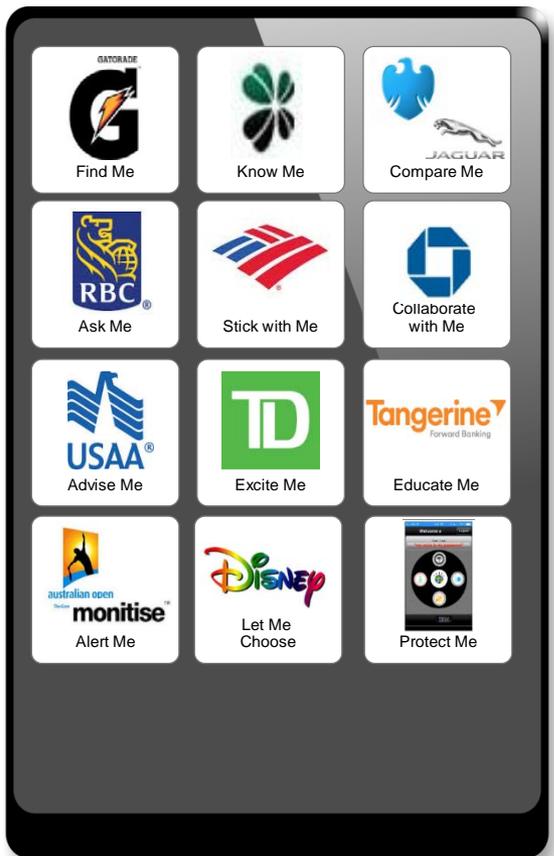
To drive superior customer experiences

To realize payments convergence

To enable insight through analytics

To position for ecosystem change



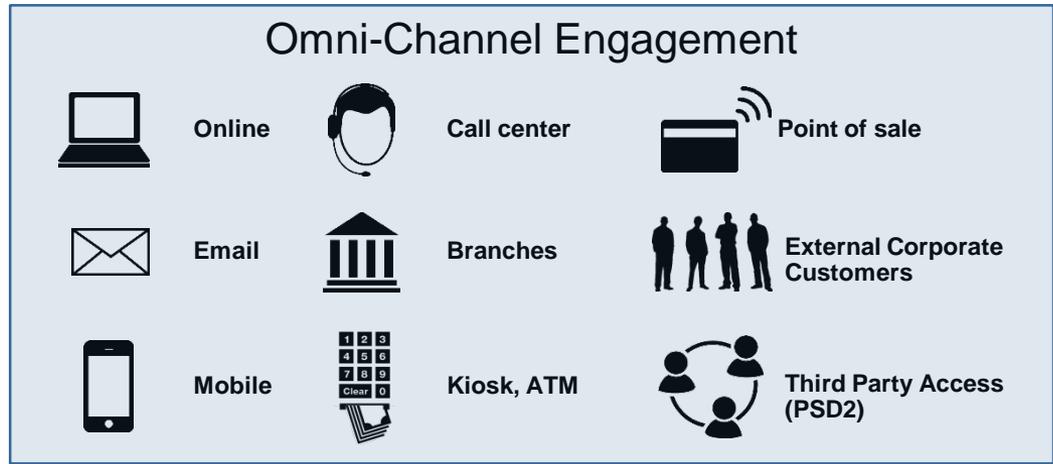


Customer Experience Focused



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

Omni-Channel Engagement





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

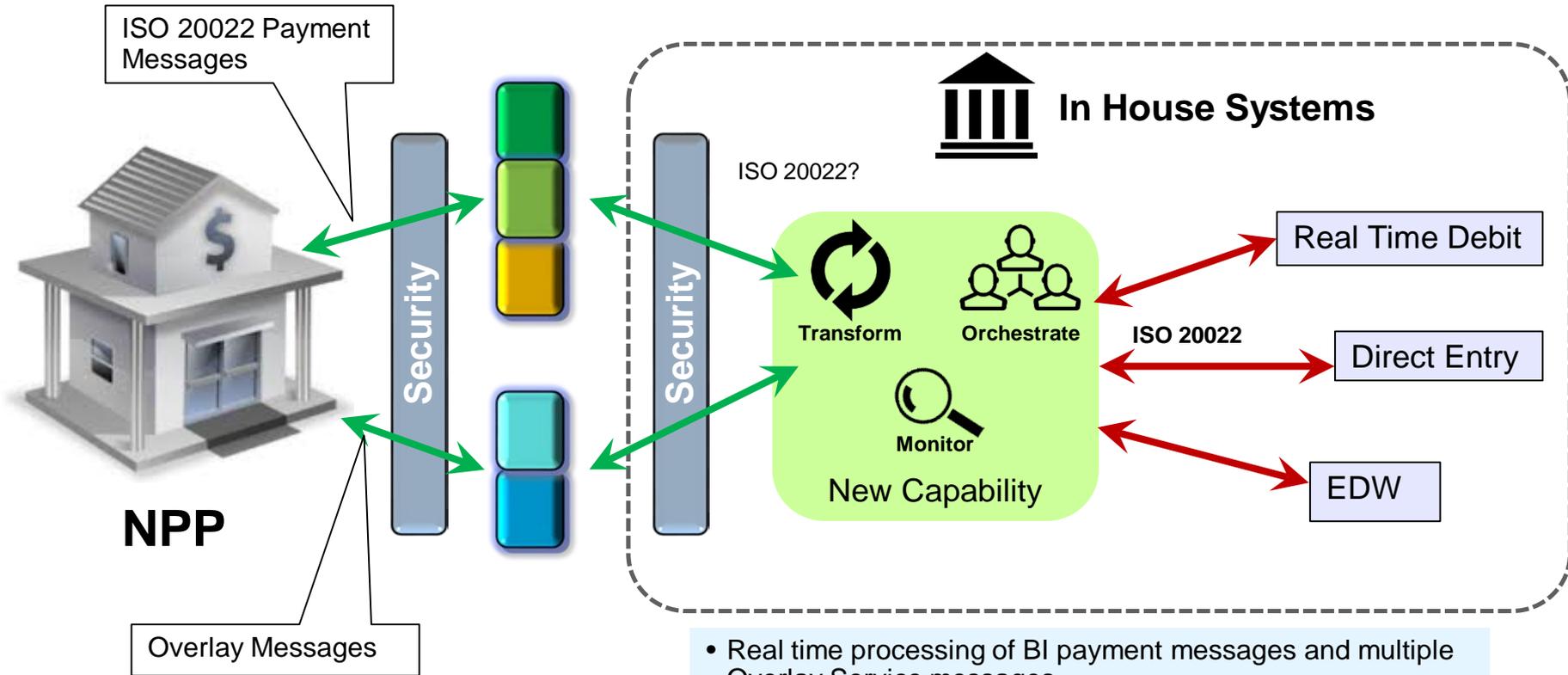
Bank processing capabilities for payments:

- 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

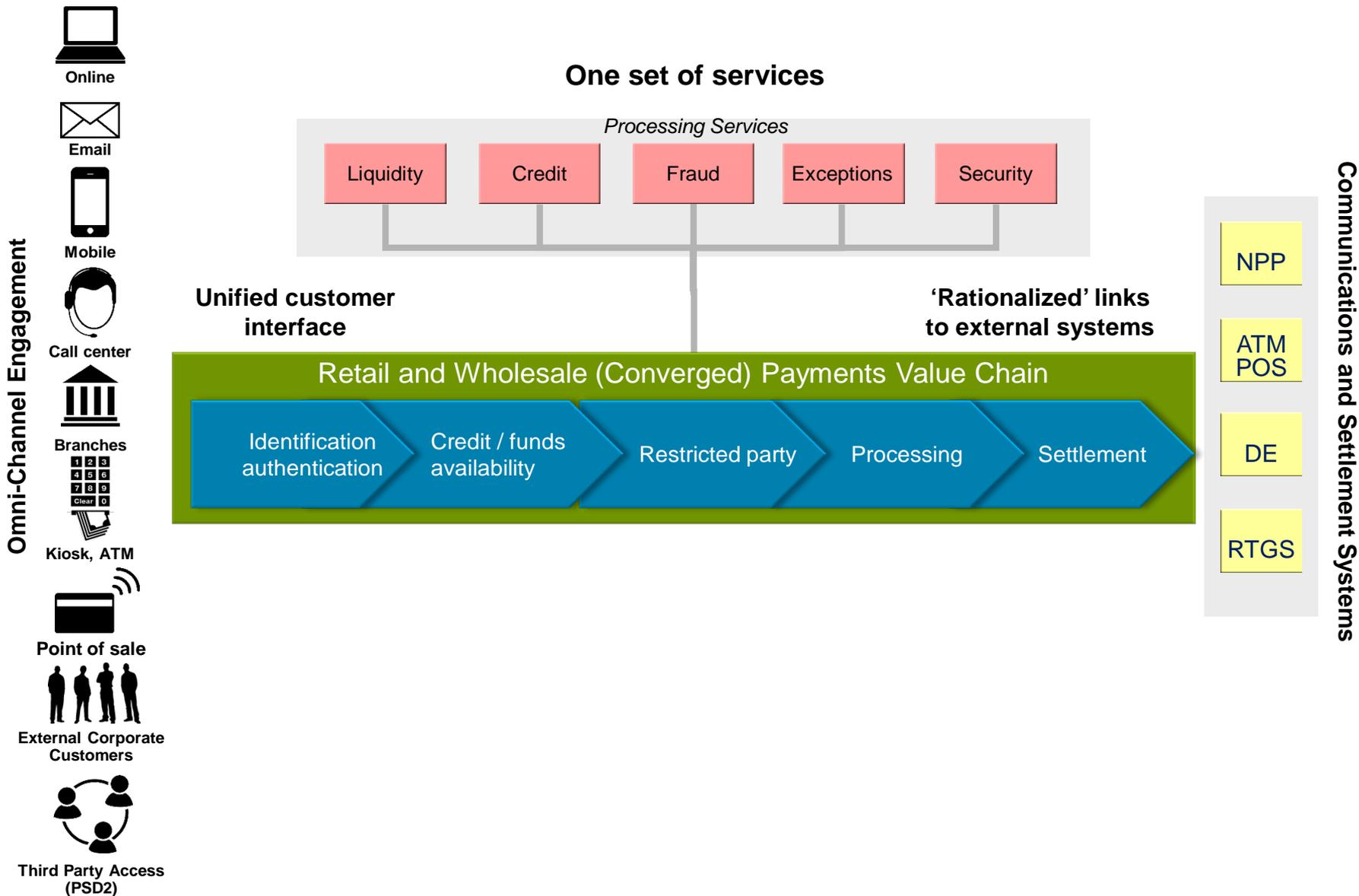
- New and traditional third parties
- Cross border
- Monitoring send, receive, security
- Payment tracking (status, customer reports)

Payment processing

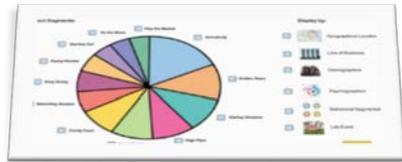
- Automated, dynamic decisioning for optimum routing based on speed, cost, customer instruction
- Straight through processing – acceleration of traditional day 2 functions, real time information
- Fraud prevention



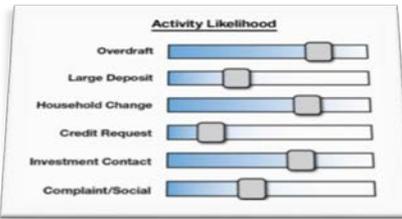
A Services Oriented Architecture enables convergence and is the foundation for future capabilities



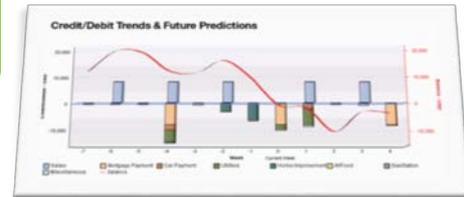
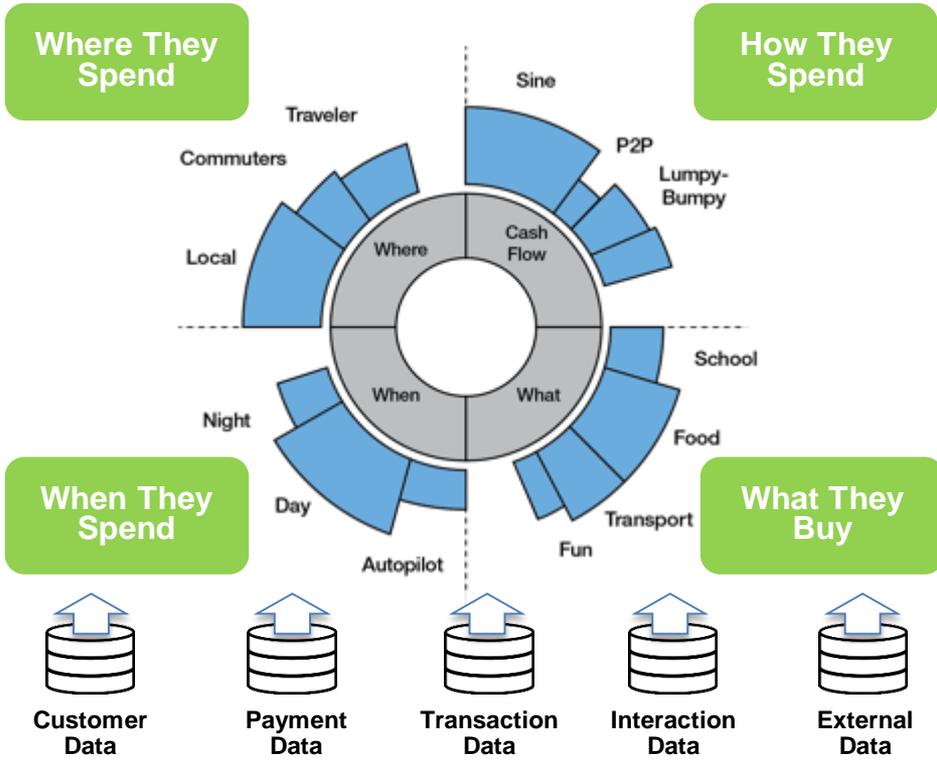
Use payment and transaction data to better understand customers



Generate segments based on behavior



Predict likelihood of financial activities & churn based on behavior correlations



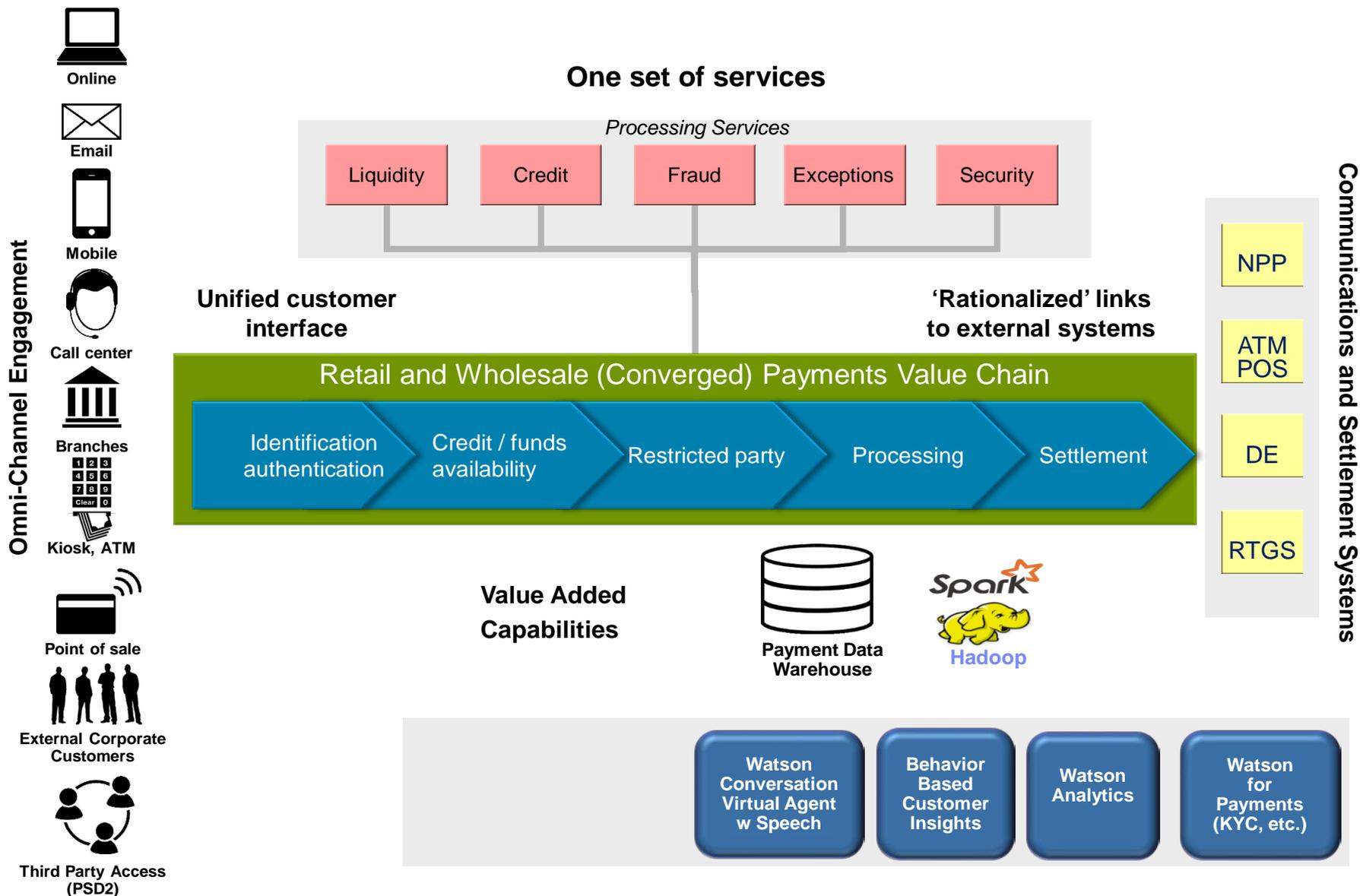
Predict future life and financial events



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

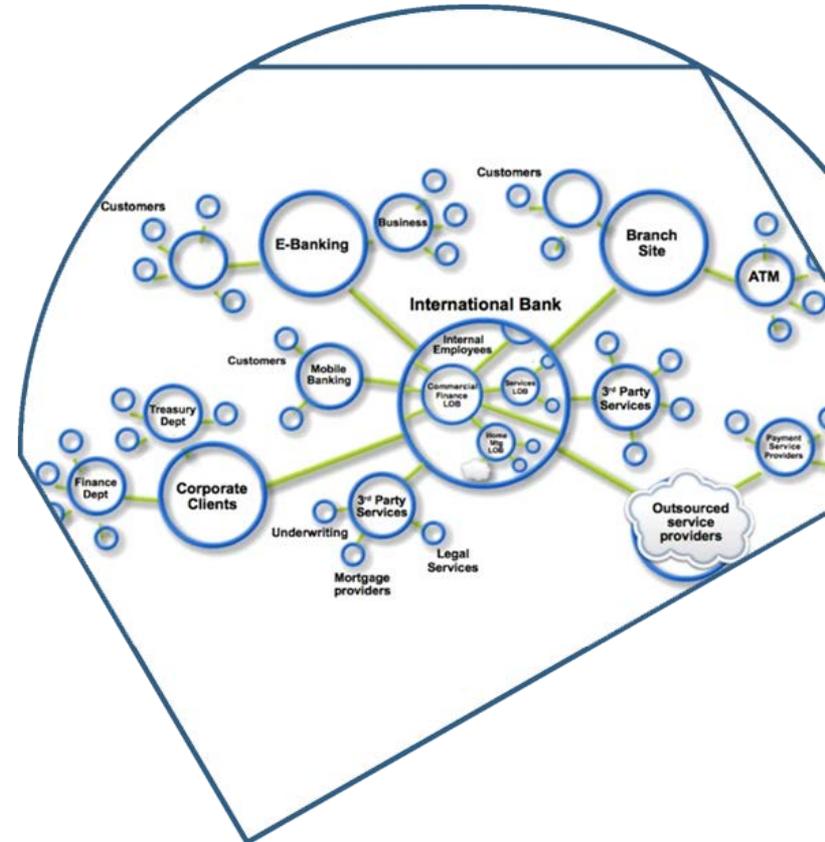
Wealth is generated by the flow of goods & services across business network in transactions and contracts

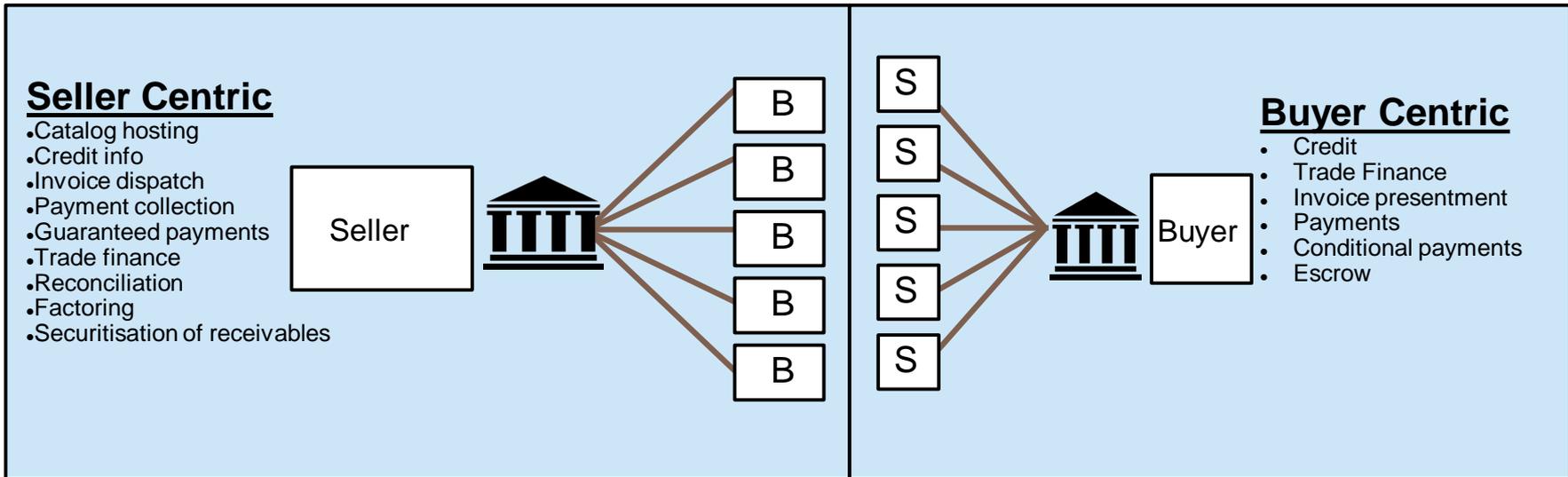
Markets are central to this process:

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

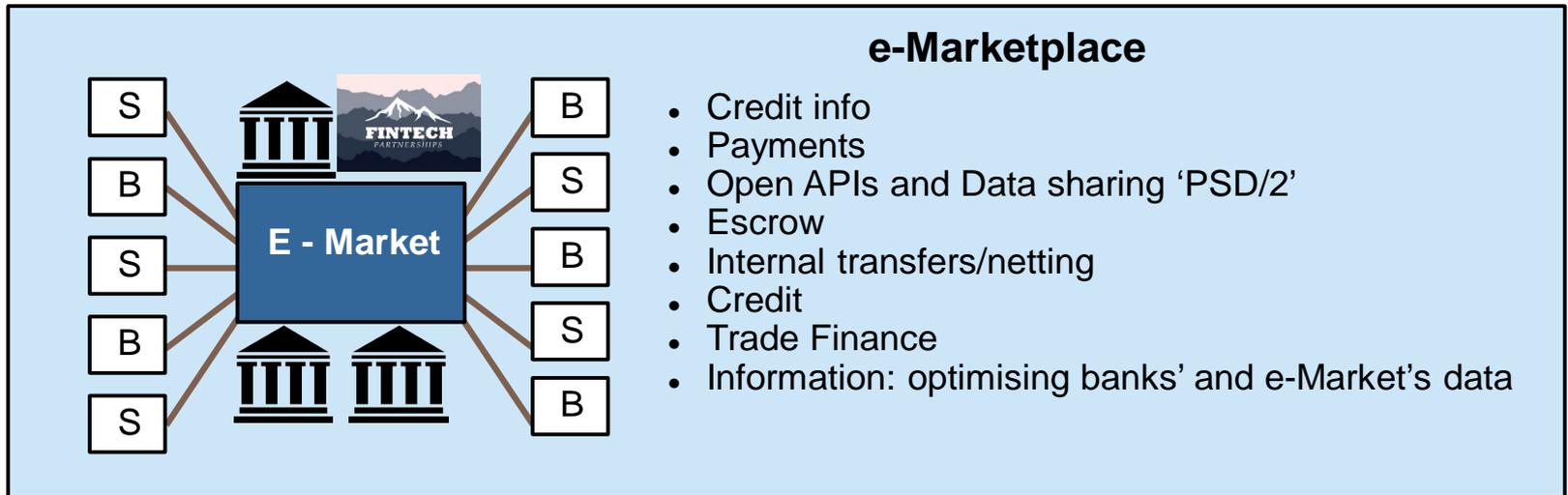
Successful banks will become an integral part of customers' everyday lives, orchestrating all of the capabilities of the ecosystems on behalf of the customer.

- 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



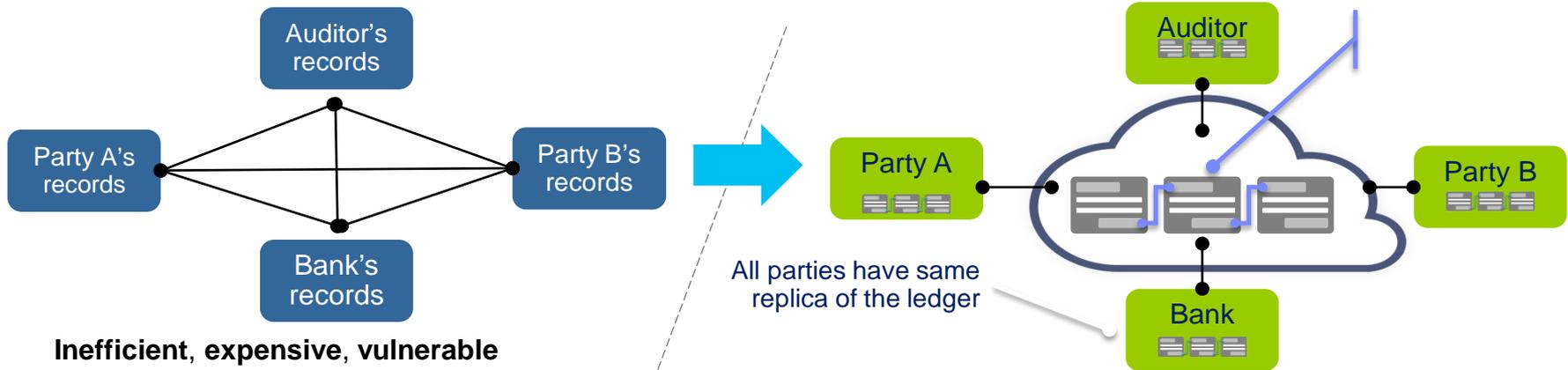


Trust, regulatory reporting, secure document transmission, tracking, insurance, logistics, inspection





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

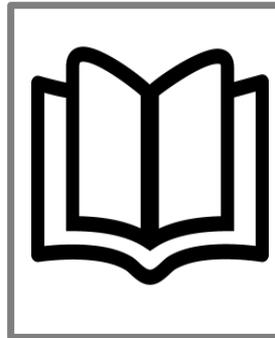
Types of Use Cases

- 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



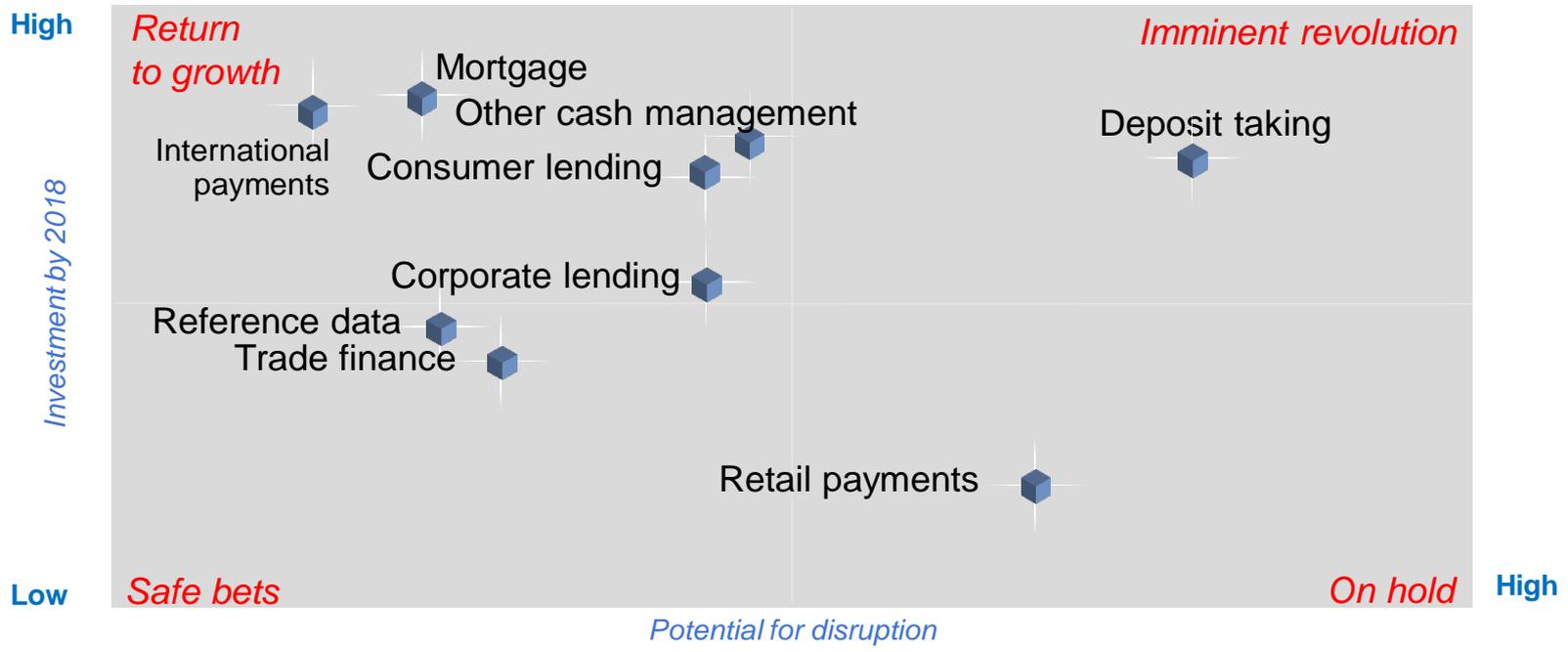
Consensus

All parties agree to network verified transaction

... Broader participation, lower cost, increased efficiency



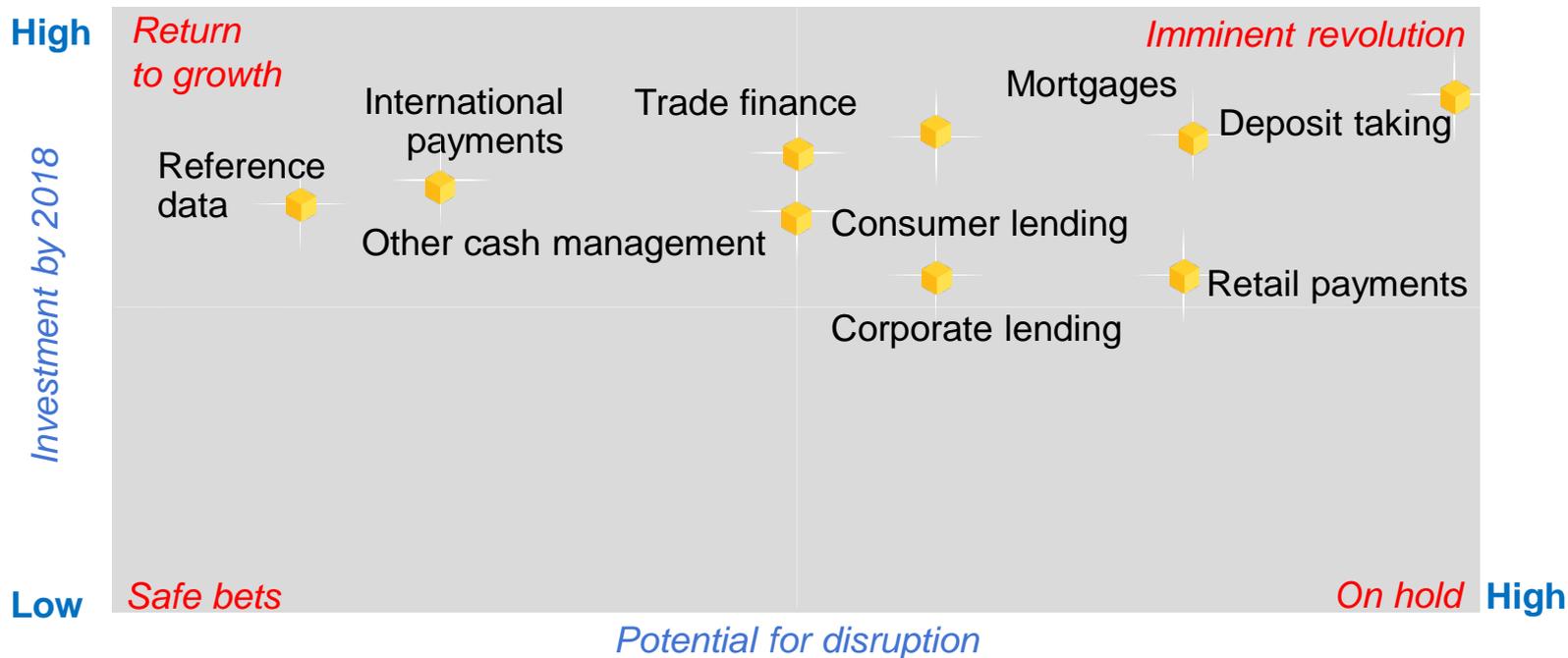
Most banks are investing for growth rather than preparing for disruption from blockchains



Source: IBM Institute for Business Value analysis

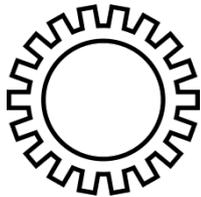


Trailblazers anticipate the greatest disruption and are defending their turf with significant investments



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

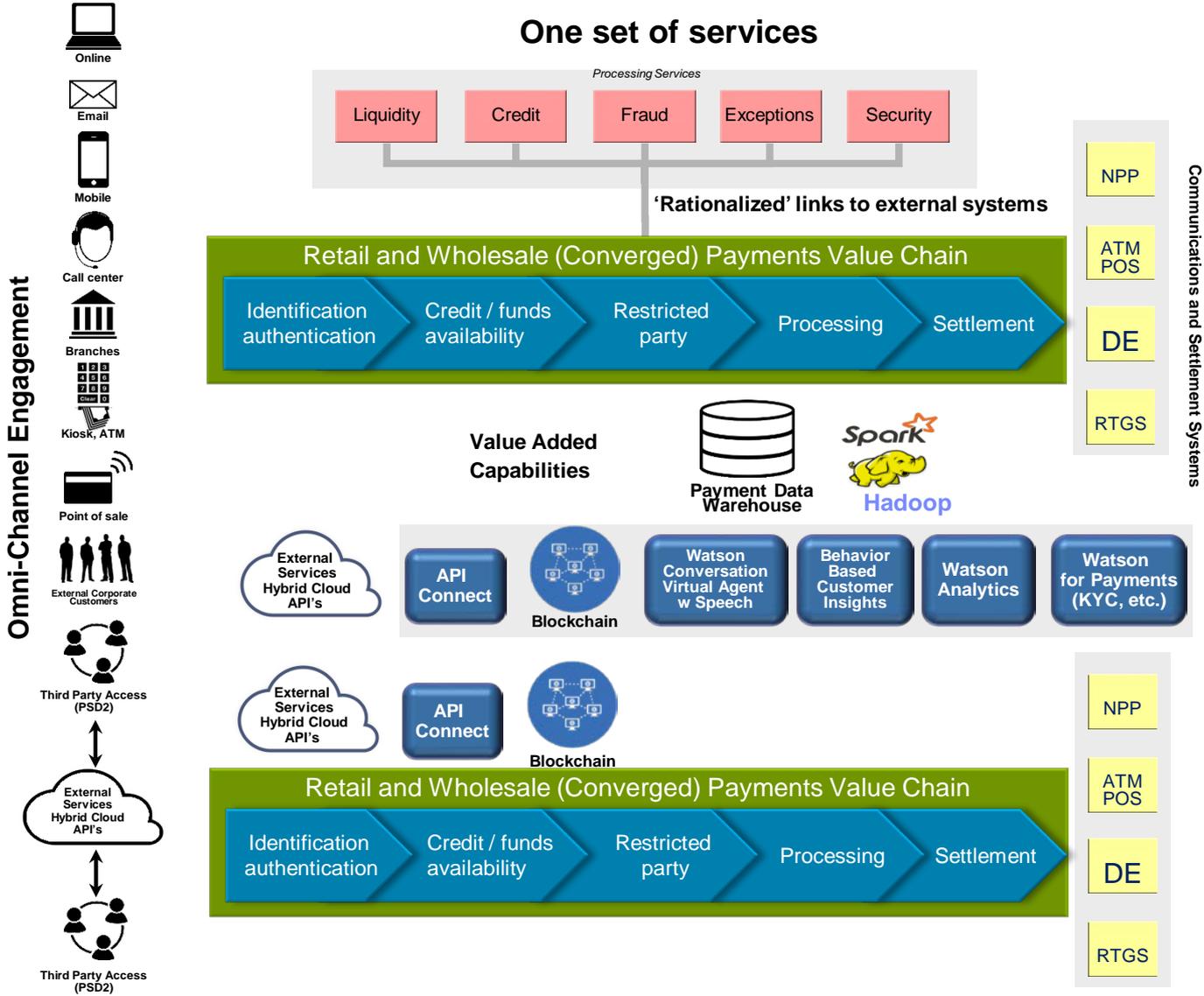


Banks should begin by identifying **key POCs in areas that will yield cost/time/risk benefits** then invest and scale in areas that indicate the greatest potential for growth

Source: IBM Institute for Business Value analysis

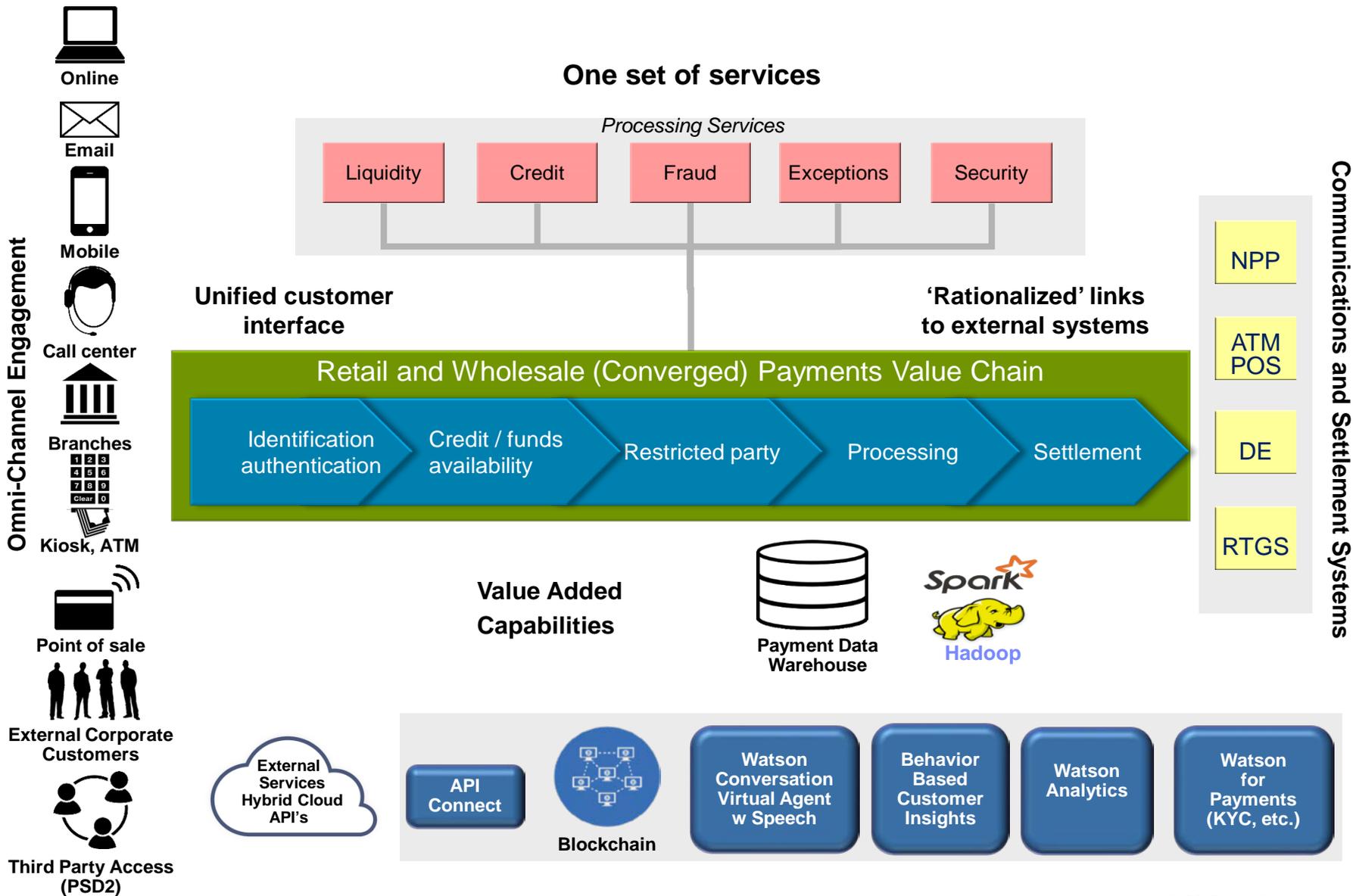


A Services Oriented Architecture enables convergence and is the foundation for future capabilities: Blockchain





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

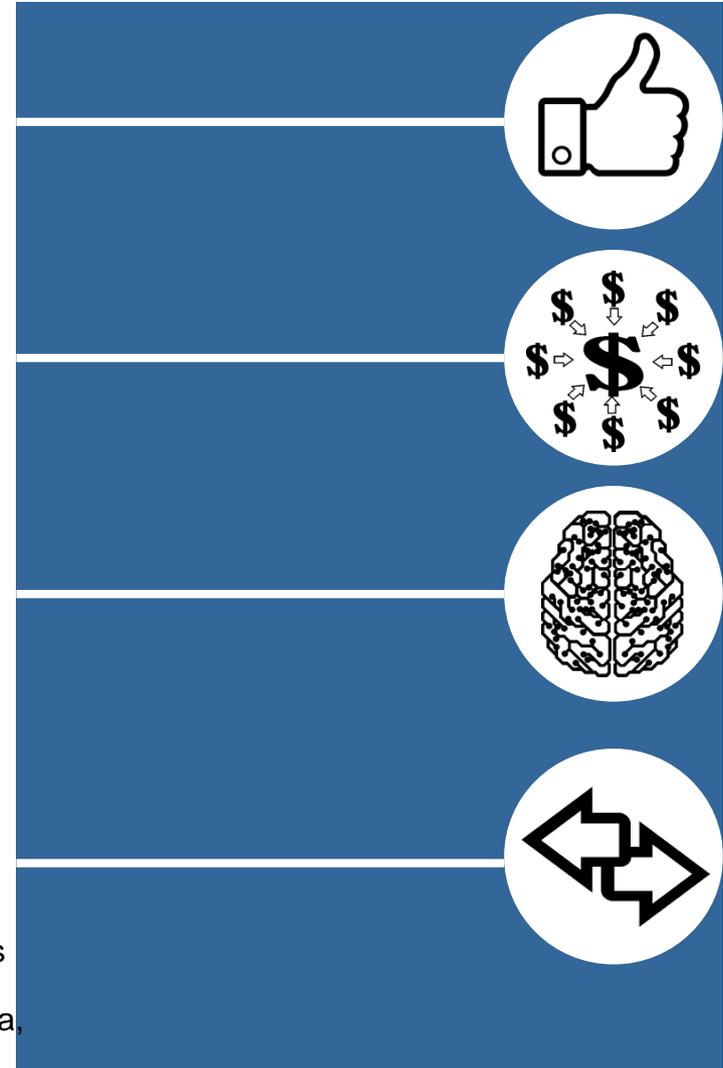
- Adopting ISO 20022 as the payments message format
- Payments Processing all payment types on common rails
- Leveraging common components regardless of payment type

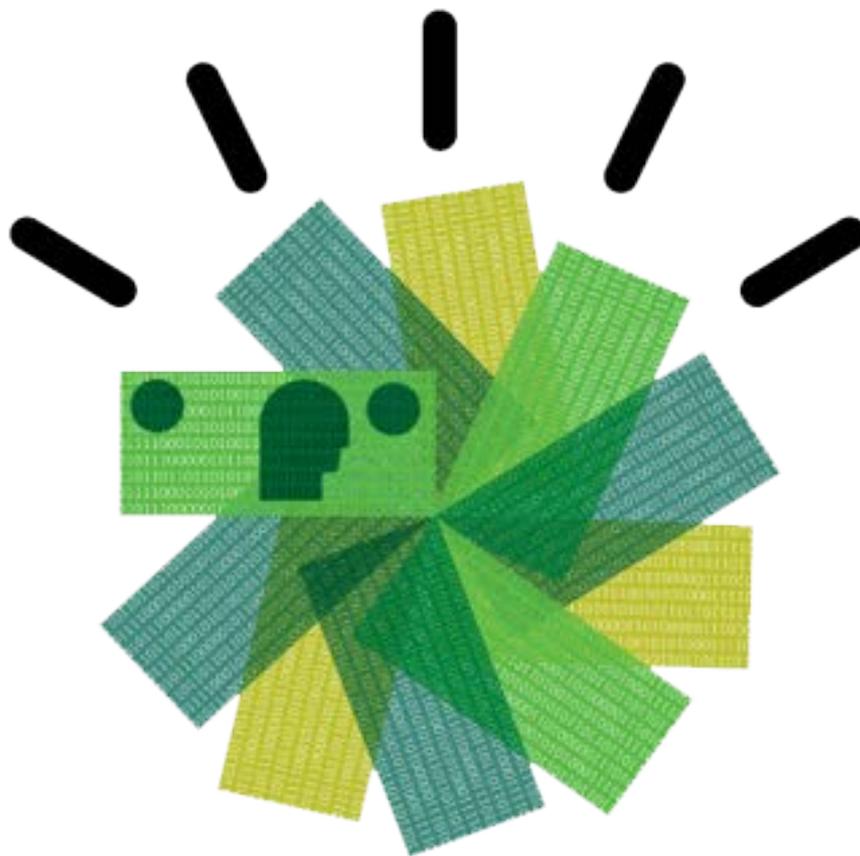
To enable insight through analytics

- 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