COLLABORATIVE MARKETING SUCCESS VIA NEXT GENERATION TRADE AND REVENUE OPTIMIZATION!

SPRING SUMMIT 2018

"Winning with TPx, Retail Execution, and Advanced Analytics Capabilities Across Channels"

POI
PROMOTION OPTIMIZATION INSTITUTE

Capgemini

Blockchain and Cryptocurrency for Trade Promotion?

Rob Hand
Trade Promotion Domain Lead

Capgemini

"03/Jan/2009 Chancellor on brink of second bailout for banks."

Satoshi Nakamoto

Inventor of Bitcoin and Blockchain

Statement on the genesis block

Blockchain – No Longer Hype…just Reality

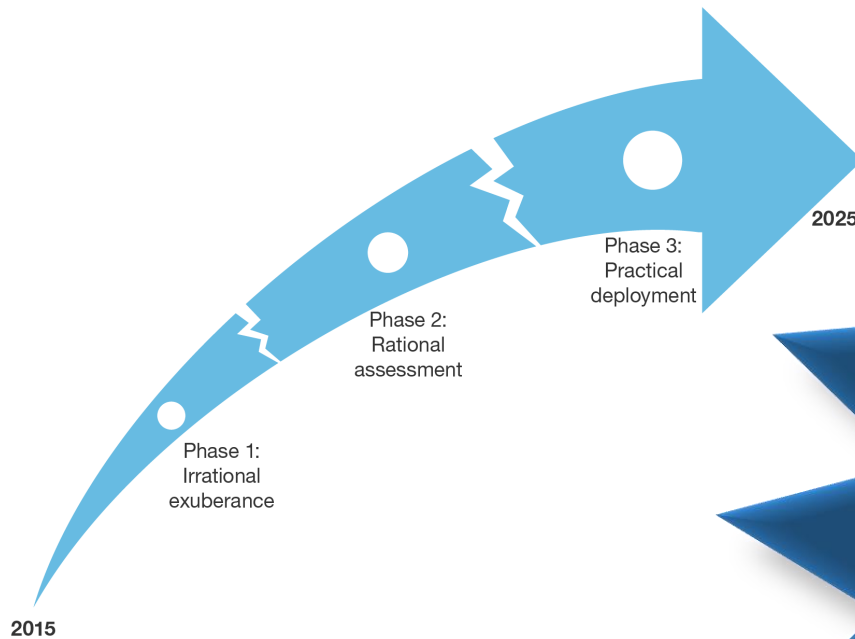## "Blockchain today is where the internet was in 1994"

We are here

Amara's Law: We tend to overestimate the effect of a technology in the short run and underestimate the effect in the long run.

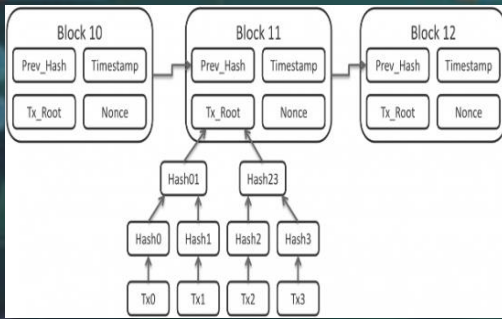Capgemini

What are we seeing with customers

Large-scale blockchain adoption isn't imminent …

2015

Phase 1:
Irrational
exuberance

Phase 2:
Rational
assessment

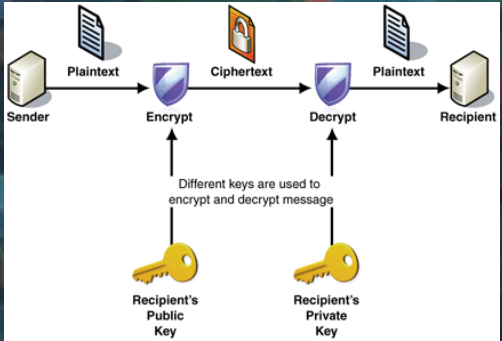Phase 3:
Practical
deployment

2025

… but we're seeing some projects transition beyond PoC

The Technology of Blockchain

Data Structure

Public Key Cryptography

Distributed Ledgers

Consensus Mechanisms

Blockchain Formats

Bitcoin Blockchain

BLOCK 1

| PREV HASH | NONCE |
| MERKLE ROOT | TIME-STAMP |

BLOCK 2

| PREV HASH | NONCE |
| MERKLE ROOT | TIME-STAMP |

BLOCK 3

| PREV HASH | NONCE |
| MERKLE ROOT | TIME-STAMP |

HASH 01   HASH 23   HASH 2   HASH 3   TXN
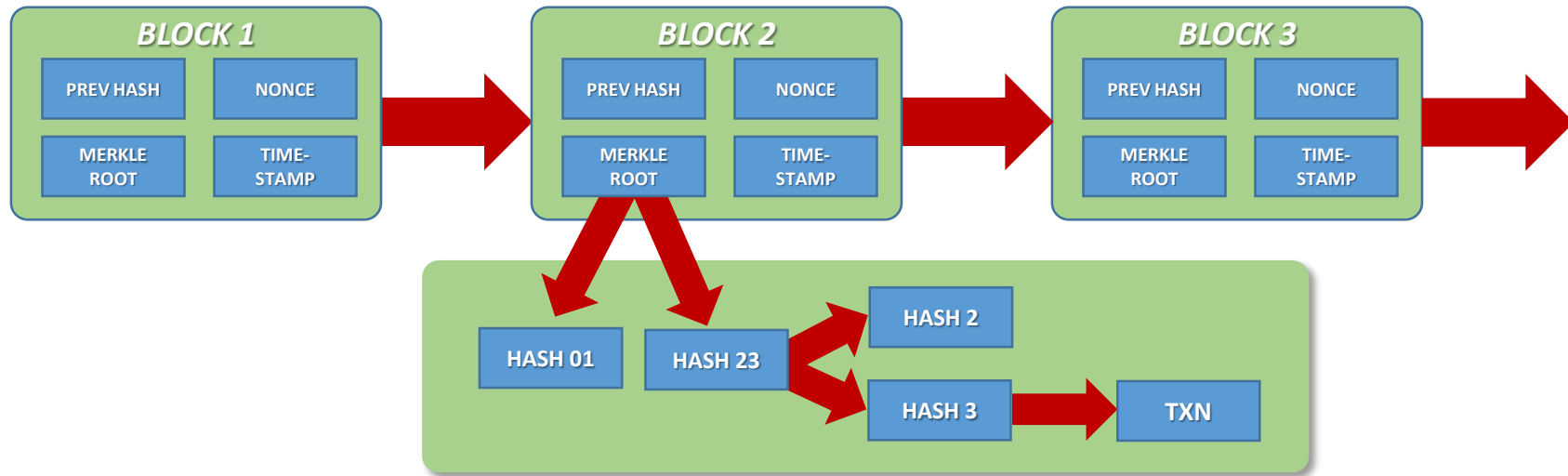
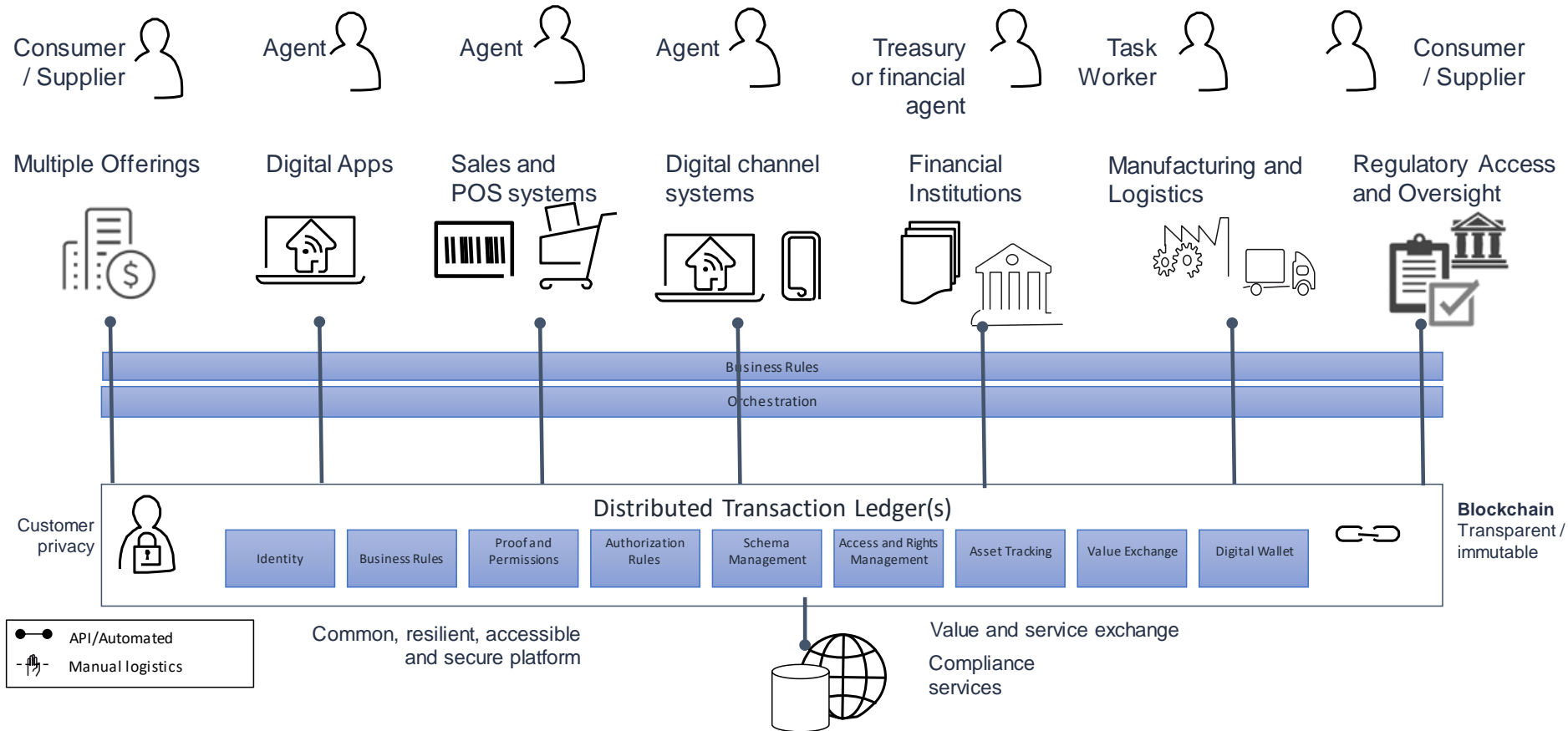## Directed Acylic Graph (DAG) Block Structure

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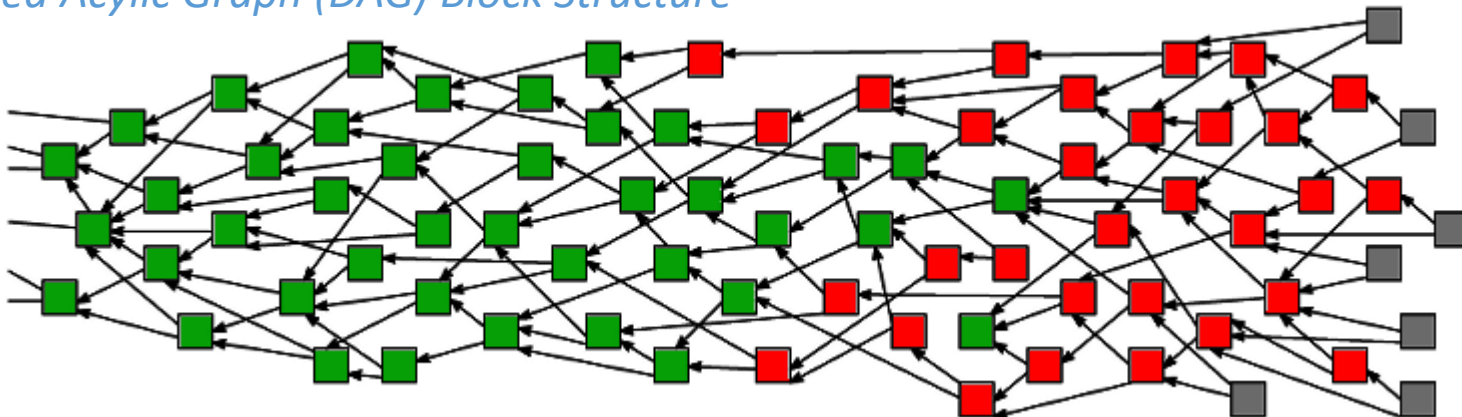
Blockchain Readiness

- **Technology improvement**
  - ✓ Scalability
  - ✓ Security
  - ✓ Speed
- **Non-Currency Applicability**
  - ✓ Data
  - ✓ IoT
  - ✓ Complex Transactions
- **Support and Infrastructure**
  - ✓ Expanding Talent Pool
  - ✓ Technology Adoption
  - ✓ Thought Leadership

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Creating Use Cases

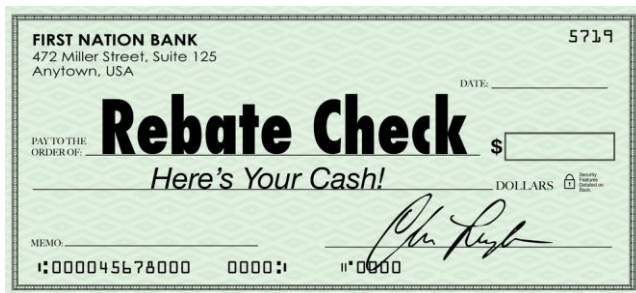## A model for creating use cases can get very complex when looking at the value chain

Consumer / Supplier	Agent	Agent	Agent	Treasury or financial agent	Task Worker	Consumer / Supplier
Multiple Offerings	Digital Apps	Sales and POS systems	Digital channel systems	Financial Institutions	Manufacturing and Logistics	Regulatory Access and Oversight

Business Rules

Orchestration

Distributed Transaction Ledger(s)

Customer privacy

| Identity | Business Rules | Proof and Permissions | Authorization Rules | Schema Management | Access and Rights Management | Asset Tracking | Value Exchange | Digital Wallet |

Blockchain Transparent / immutable

- ●—● API/Automated
- - 🖐 - Manual logistics

Common, resilient, accessible and secure platform

Value and service exchange

Compliance services

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In-store Purchases

Promotion Settlement

Direct-to-Consumer Payments

In-store Purchases

POS DATA

- Distributes Daily ePOS Purchase Data
- Provides real-time Market Basket Contents
- Supports automatic inventory management
- Initiates re-ordering
- Provides shopper profile updates
- Tracks and distributes coupon/eComm redemption
- Transacts redemption settlement
- Delivers real-time rebate redemption/settlement
- Initiates trade promotion settlement
- Updates demand signal response, calculates rates
- Tracks and updates multi-tier reseller-to-distributor data
- Calculates and distributes loyalty intelligence

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Promotion Settlement and Direct-to-Consumer Payments

- Settlement Type (Deduction, Claim)
  - ✓ Promotion plan = Smart Contract
  - ✓ Volume/sales Requirement = Shipment ledgers, Logistics
  - ✓ Tactical Activities = Individual transactions (verified by retailer) produces each "block"
  - ✓ Action = Transaction (Credit, billback, Pay, Pend, Hold, Deny, etc.) with automatic validation via blockchain

- Rebate/Coupon
  - ✓ Rules/Offer = Smart Contract
  - ✓ Trigger = POS Transaction
  - ✓ Compliance Audit = Validation through blockchain

Trade Promotion Planning

Retail Execution/DSD

Business Intelligence/Analytics

Retail In-store Promotion Mgmt.

Consumer Shopping Engagement

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Key Considerations

Trade Promotion Planning

Retail Execution

Retail In-Store Promo Mgmt.

+

- Smart Contracts for ~~mption~~ ... In-st...
- Rapid trac... ...mpli...
- Im... ...ie...
- ... ...ne intel...

More Secure

Increased Volume

Lower Cost

—

- Unproven technolog... ...applicati...
- Requires exte... ...fo... ...nd
- "Time... ...s a... ...fo... ...odes
- S... ...tracts ... ...ble ... ...ngle

Process Potholes

"Coordinator"

High Risk

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Key Considerations

Consumer Shopping Engagement/Experience

Business Analytics

+

- Data could be sh___ ___uires ___ ___tion)
- Consumer___ ___ ___ on ___ wo___ ___ all
- Val___ ___ proj___ ___ pro___ ___ efit all
- ___ insigh___ ___ccessib___ ___ "all boats" in the market

Real-time Insights

Higher Quality

Lower Cost

−

- Sensitive nature of ___ data wi___ risk
- Retail invo___ ___y b___ ___d a___
- "On___ ___ord___ ___d b___ ___ issue
- ___untri___ ___xtrem___ ___y environments

Infrastructure

Threat to Some

Risk Perception

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Blockchain and Cryptocurrency Technology is Real and Coming

- ✓ Blockchain 2.0 – Not a solution for TPx
- ✓ Blockchain 3.0+ - Will be an operational standard
- ✓ Rapidly growing corporate initiatives and support community

Use Cases are Expanding

- ✓ Promotion Settlement
- ✓ Promotion Planning and Execution through Smart Contracts
- ✓ Data management and Intelligence
- ✓ Consumer Shopping Experience and Engagement Management
- ✓ IoT

Action **YOU** Need to Take

1. Consider blockchain and cryptocurrency in your future roadmaps
2. Structure your programs to accommodate the smart contract
3. Make sure you have an IT organization that is planning for B&C
4. Consider B&C technology when planning new or upgrading functionality

What Dreams May Come...

Immediate Validated Settlement

Real-time Shopper Purchase Decisions

In-Pantry Inventory Status

Plan-less Promotion

Shelf Sensor-based Auto Inventory

Real-time In-store Clientelling

Asset Tokens on Settlement!

Thank You

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