

A hand holding a black pen points to a spreadsheet on a desk. In the background, another hand is using a calculator. The scene is overlaid with a blue gradient.

The Institutes RBA Alliance

Christopher G. McDaniel

Blockchain For Insurance Overview

The bottom of the slide features three overlapping geometric shapes: a light blue triangle on the left, a dark blue triangle at the bottom center, and a yellow triangle on the right that extends to the edge of the slide.



Pain Points



Insured

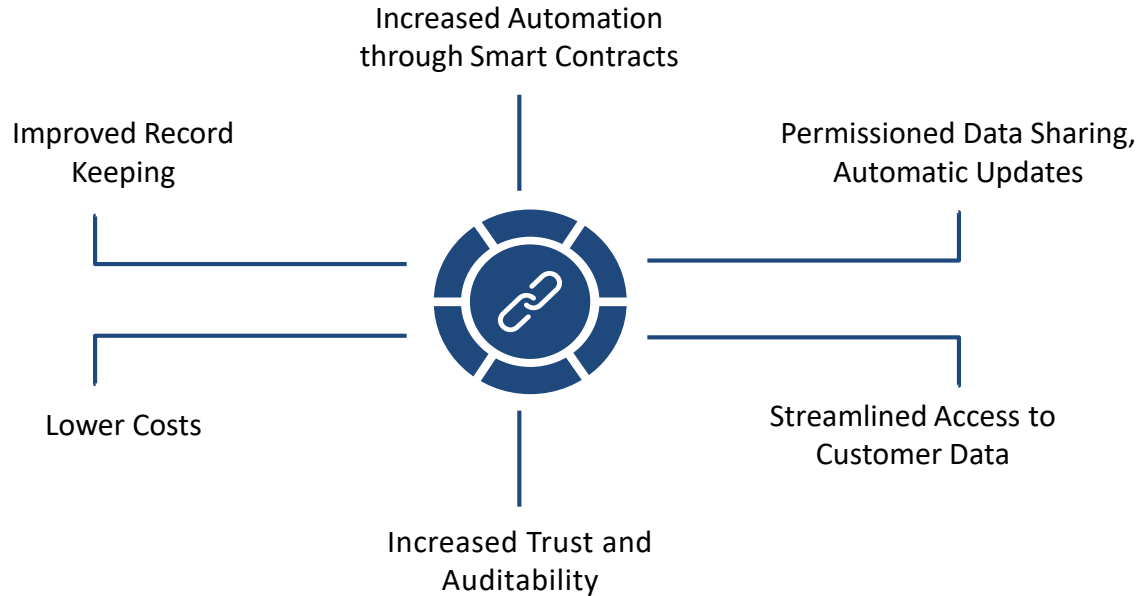
- Poor Customer Experience
- High Premiums
- Slow Entry into Emerging Markets
- Weak Product Innovation



Insurer

- High Administrative Costs
- Costly Intermediaries
- Fragmented Data Sources
- Manual Processes
- Fraud Prone
- Stringent Regulation

Benefits



Client Benefits



Increased Efficiency

Eliminates duplicative processing so that processes can be done once, rather than multiple times by both the carriers and distributors. Streamlined processing can be done in real-time, minimizing transaction completion times, and providing complete transparency to all parties including the end customer.

Reduced Risk

Blockchains contains a certain and verifiable record of every single transaction ever made. This mitigates the risk of double-spending, fraud, abuse, and manipulation of transactions. Blockchain security is considered the best in the world globally.

In addition, there are strong controls for what data is transparent to other parties, and which is held proprietary. Compliance monitoring can be controlled on a much more granular level.

Improved Customer Service

In the insurance batch transactional world, the Distribution Channel has little to no insight into what transactional status is at the Carrier, and the End-Customer has no transparency at all. Blockchain brings the flexibility for all to know instantly the status of any process or transaction by all interested parties. It also enables much more self-service capability by the end customer, reducing the need for call center support personnel.

New Market Opportunities

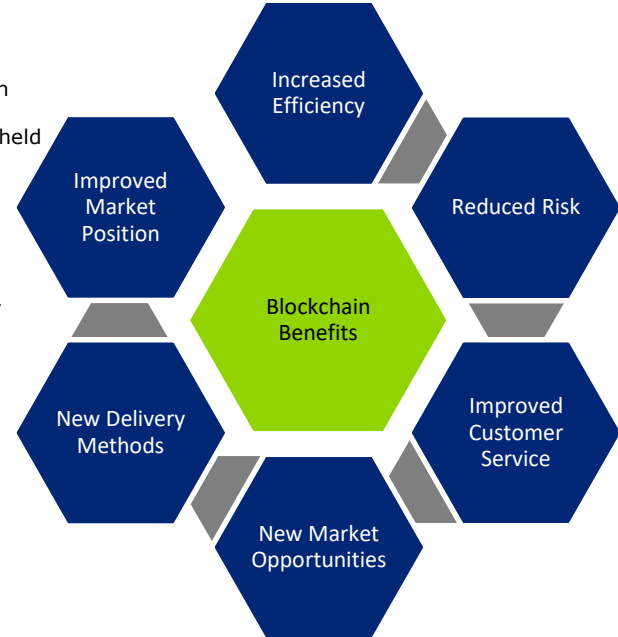
Once the common Blockchain foundation is in place, and select applications are built on top, it will be much easier to bring new products to markets not yet served. These processes will occur much quicker, because of the shared nature of the Blockchain.

New Delivery Models

New delivery models such as direct-to-consumer will be greatly simplified through the implementation of Blockchain. Because of the universal access capability, new products can be made available to a wider set of delivery models such as Broker/Dealers, BGAs and Bank Channels.

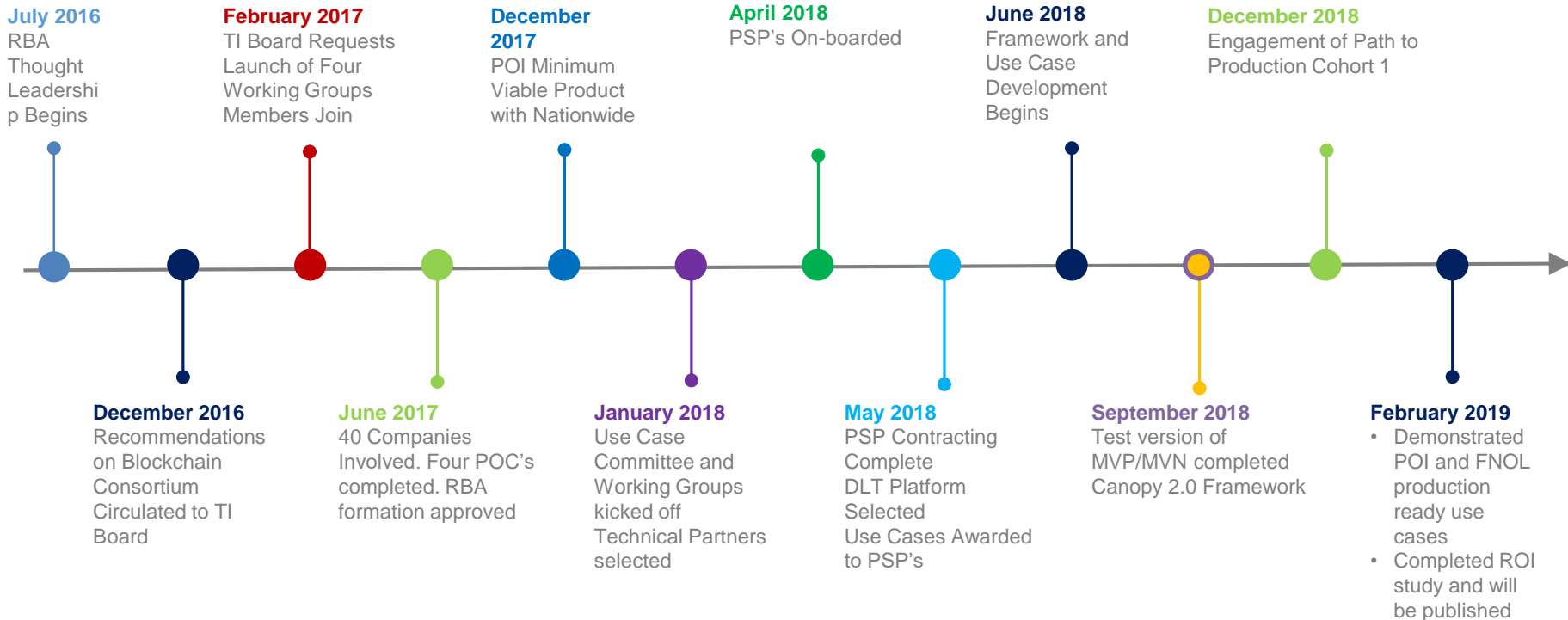
Improved Market Position

Blockchain is an access equalizer for all participating firms. The applications built atop the blockchain allow forward thinking organizations to shine. Aggressively pursuing the development of new and innovative applications on the Deloitte model will enable firms to leverage their investment in innovation to improve their market position.



RBA Overview







September 2017

- LIMRA Blockchain Advisory Council formed
- LIMRA & RBA Alliance signed memo of understanding

May 2018

RBA & Deloitte facilitate 2-day 'Lab' @ LIMRA headquarters with 18 LIMRA member companies to identify initial Use-Case opportunities

October 2018

LIMRA Blockchain Advisory Council Meeting

March 2018

RBA introduced to LIMRA Blockchain Advisory Council

September 2018

- LIMRA and RBA advance from MOU to formal contract – appointing LIMRA as L&A, Retirement and Group insurance administrator.
- LIMRA & RBA announce Mortality Monitor as L&A sector inaugural Use Case

December 2018

Mortality Monitor Working Group commences

RBA Components



Non-Profit Consortium



Carriers, Brokers
& Reinsurers



Industry
Organizations



Government
Organizations



Standardized Framework



Use Case Development



Universal Applications
Built By RBA
Software Factory
Available To All Members



Proprietary Applications
Built By 3rd Parties
or Members Who Want To
Retain Their IP While Still
Having Access to Members

Sectors & Geographies



RBA Canada



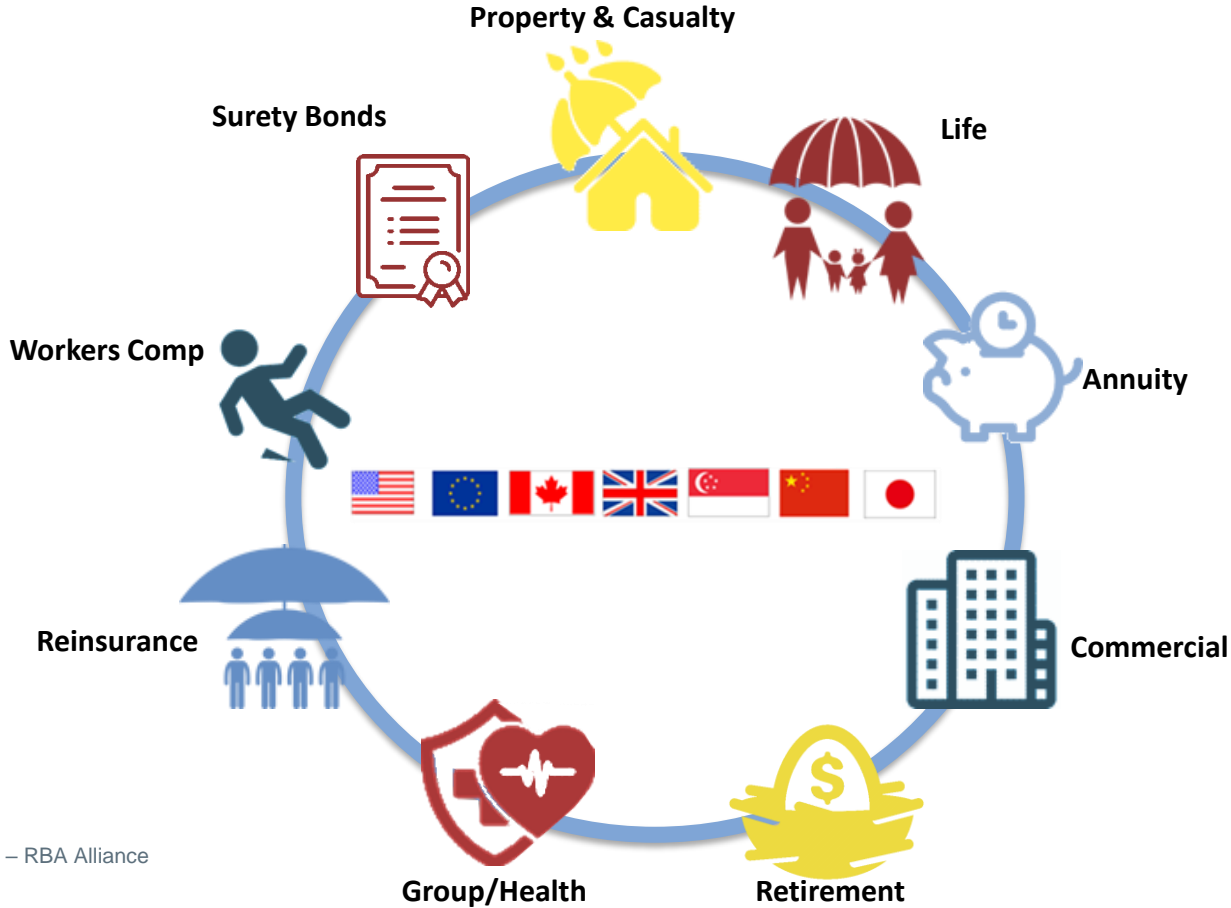
RBA Asia Pacific



RBA USA



RBA EMEA



Participants in the RBA Alliance



Providers

P&C Members

L&A Members

Non-Profits

Providers

P&C Members

Non-Profits

Civics

...to be announced soon

Collaborators

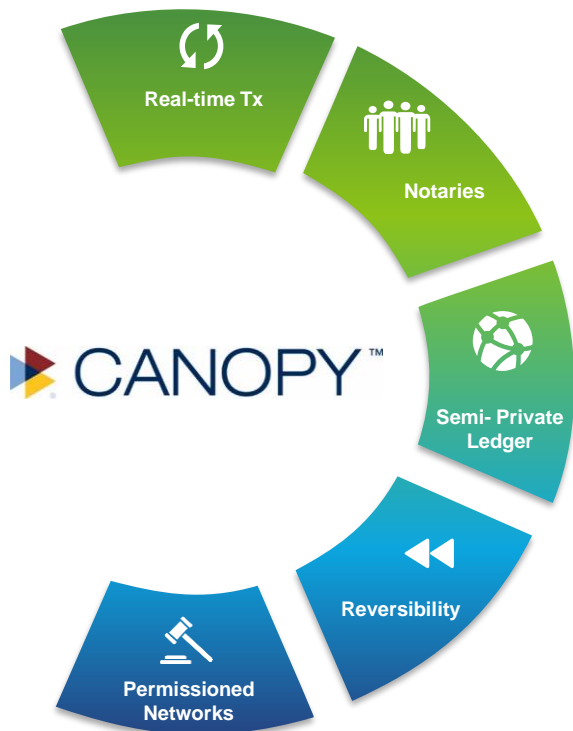
...to be announced soon

Canopy Overview





Canopy leverages a permissioned ledger for recording business transactions with trusted parties



REAL-TIME TRANSACTIONS

Canopy optimizes workflows and enables the sharing of previously siloed data necessary to triage and communicate, in real-time, across the insurance industry.

NOTARIES

No double spending with the potential for transaction validation across different consensus algorithms.

SEMI-PRIVATE LEDGER

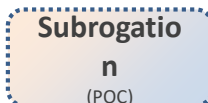
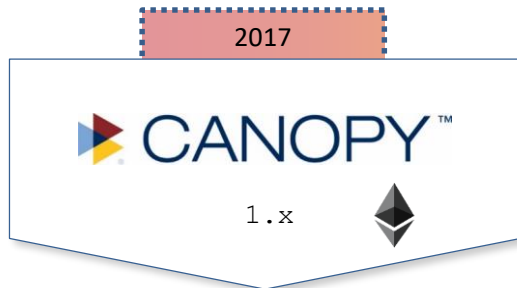
The need for consensus across all parties in the network has been limited between the participants of a transaction. This architecture affords scalability and data privacy.

REVERSIBILITY

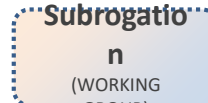
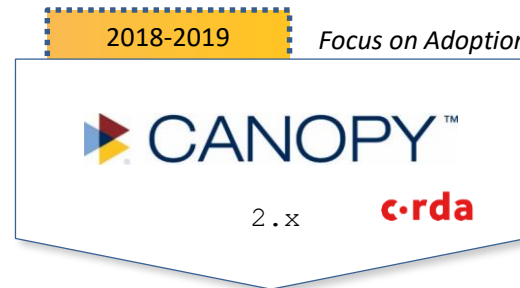
Canopy allows for failed contracts to be disputed by entities involved in the transaction.

PERMISSIONED NETWORKS

All code contracts are backed by a legal attachment. This makes transacting parties aware of whom they are transacting with.



- Canopy 1.0 – Limited production
-
- Nationwide®



- Application Programming Interface
- Canopy 2.1 – Minimum Viable Network (In progress)
- Canopy 2.2 – Production deployment (Expected early 2019)



2018 - 2019

Focus on Adoption



2.x **c.rda**

POI

(BUILD)

Subrogatio

n

(WORKING
GROUP)

FNOL

(BUILD)

Parametric

(WORKING
GROUP)

- Application Programming Interface
- Canopy 2.1 – Minimum Viable Network (In progress)
- Canopy 2.2 – Production deployment (Expected early 2019)

2019 - 2020

Focus on Features



Multi-Ledger

3.x

c.rda

2019 Use Case

(BUILD)

2019 Use Case

(BUILD)

2019 Use Case

(BUILD)

2019 Use Case

(BUILD)

IoT



Analytics



2020



4.0

2020 Use Case

(BUILD)

2020 Use Case

(BUILD)

2020 Use Case

(BUILD)

2020 Use Case

(BUILD)

Module 3

Module 4

Use Cases



Blockchain and DLT Use Cases Range Across Entire Insurance Value Chain



| Products, Pricing & Distribution | Underwriting & Risk Management | Policyholder Acquisition & Servicing | Claims Management | Finance, Payments & Accounting | Regulatory & Compliance |
|---|--|--|---|---|----------------------------------|
| Parametric Insurance | Provenance | Policyholder Acquisition | First Notice of Loss Data Sharing | Subrogation | Motor Vehicle Proof of Insurance |
| Oracle aggregation service | Data Sharing and Risk Registries | Document Reconciliation (Placement Documentation) | Asset Transfer (Certificate of Title–IoT) | Workers Comp Bill Review and Medical Claims Processing | Real-time Regulatory Reporting |
| Telematics or IoT-Based Use Cases | Self-sovereign IDs Linked to Insurance | Surety Bonds (verification/validation) | Worker’s Compensation (EMR) | Reinsurance (Premium/Loss Cessions/Execution of Treaties) | Agent/Broker Licensing |
| Insurance for transactional purchases | Digital Twinning | Certificates of Insurance | Fraud Registry | Technical Accounting (maintaining/sharing of financial records) | Sovereign ID (KYC/AML) |
| Microinsurance Mobile Insurance for Developing Countries | Marine Use Cases | Policy Cancellation and Non-Payment (use of smart contract to trigger) | Multi-layer claims settlement | New Forms of Raising Capital (Crowd Sourcing) | Auto Titles |
| Peer-to-Peer Insurance | Creation of a Repository of Truth for Underwriters | Onboarding and Policy Administration/Customer Service Requests | Marine Claims Management | Multiple Payees | Education Licensing |

This Year's Use Case Goal: 19 Use Cases This Year (4 Underway, More to Come)



| | Problem Addressed | Solution Provided |
|-----------------------------|--|---|
| Proof of Insurance | Insurance policy validation is performed both physically and digitally, but the process can be complex and costly | <ul style="list-style-type: none"> Institute electronic safekeeping Enable real-time access to information |
| Parametric Insurance | Insurance product that is triggered when a low-frequency, high-severity event occurs; only represents a small portion of the P&C market, but has large potential to expand | <ul style="list-style-type: none"> Expand parametric insurance offerings Automate data collection and contract execution |
| First Notice of Loss | Initial claim made to insurance provider following the loss, theft, or damage of an insured asset; process can be made simpler | <ul style="list-style-type: none"> Optimize information flow and notifications Facilitate data sharing Act as immutable record |
| Subrogation | Exchange between insurers to collect money from the party legally responsible for a loss; opportunity for process to be streamlined | <ul style="list-style-type: none"> Facilitate netting of payments Optimize costs and streamline process |

Potentially Improved Operational Areas of P&C Value Chain

| | Product Features / Structure | Claims Investigation | Claims Negotiation & Settlement | Claims Processing | Finance, Payments & Billing | Regulatory Reporting / Risk | Information Technology |
|-----------------------------|------------------------------|----------------------|---------------------------------|-------------------|-----------------------------|-----------------------------|------------------------|
| Proof of Insurance | | ✓ | | | | ✓ | ✓ |
| Parametric Insurance | ✓ | | ✓ | ✓ | ✓ | | ✓ |
| First Notice of Loss | | ✓ | ✓ | ✓ | | ✓ | ✓ |
| Subrogation | | | ✓ | ✓ | ✓ | | ✓ |



Current Manual Process



Automated With RBA



Potential Insurance Use Cases



Life & Annuity

- Intermediary Elimination
- Improving Back-Office Operations
- "Simplified In-Force Transactions"
- Automated App Triage
- Health Records
- Client Onboarding
- Insurance "smart contracts"
- Near Real-Time Data/Dynamic Pricing
- New Policy Applications
- Scanned Documents For Associated Transactions
- Settlement Information For Transactions
- Additional Policy Payments
- Disclosures Associated With Transactions
- Product Exchanges
- Product Data and Associated Rider Data
- Agent Profile Data
- Client Profile Data
- Product and Agent Certifications
- Product Illustrations
- Agent Compliance Information
- Claims Data (Life Insurance Only)
- Policy Documents For Delivery To End Client

Property & Casualty

- Proof of Insurance
- First Notice of Loss
- Parametric Insurance
- Subrogation
- Fraud Prevention
- Automated rule-based claim processing
- Claim assessment
- Claim payment
- Improved transparency in compliance
- Improving value-added service capabilities for brokers / agents
- Innovation of P2P Insurance
- Providing history of assets / client events (KYC)
- Loyalty Programs
- Enhancing direct sales opportunities
- Better placement of non-standardized or specialized risks
- Underwriting among multiple insurers / co-insurance
- Underwriting / risk assessment
- Quoting and premium collection
- Online Insurance "Navigators"
- Fine Art Tracking

Reinsurance

- Contracts & Claims
- Operating Entity Standardization
- Global Risk and Financial Management
- Transactional Accounting
- Cat Bonds and ILWs
- Reinsurance Facilities and Exchanges
- Multi-Layer Application/Burn-Down

Regulatory/State Gov

- Premium Tax Automation
- Uninsured Motorist
- Auto Title
- Regulatory Reporting

Multi-Line/Miscellaneous

- Peer-to-Peer Insurance
- Group Formation
- Predictive Risk front end to Reinsurance Exchange
- Investor Program
- Group Financial Activities
- Behavior Based/Risk Based Need
- increase the types of insurance covered by online insurance aggregators
- More personalized (differentiated) quote and coverage support
- Micro Insurance
- Identity Management
- Surety Bonds
- Group Insurance
- Workers Comp

Questions

