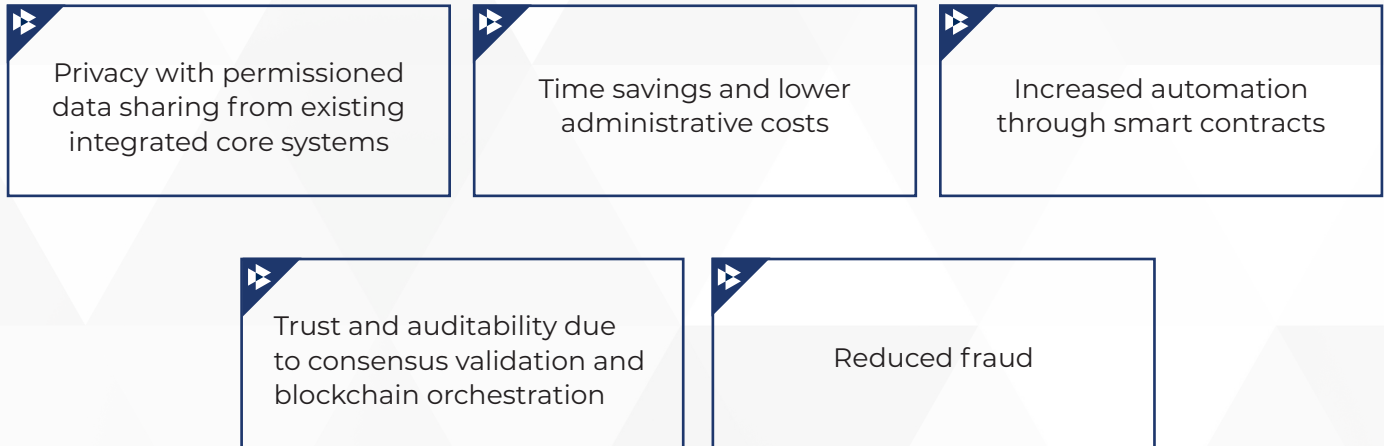The RiskStream Collaborative™

RAPID X: A First Notice of Loss (FNOL) Data Sharing Solution

Benefits Report

The Institutes RiskStream Collaborative, Canopy and Blockchain Apps

Private permissioned blockchain, often called enterprise blockchain, is increasingly being applied in industries with a great amount of multiparty business processes for intercompany data exchange and verification. Across the financial services industry, many are looking at blockchain and broader DLT (distributed ledger) technology as ways to streamline the flow and verification of data, lower operating costs, improve processes, and reduce the need for intermediation. For example, enterprise blockchain may provide businesses benefits such as:

Privacy with permissioned data sharing from existing integrated core systems	Time savings and lower administrative costs	Increased automation through smart contracts

Trust and auditability due to consensus validation and blockchain orchestration	Reduced fraud

Enterprise blockchain is quite different from cryptocurrency (or other public blockchain protocols) in that the underlying protocol is generally not public; it's a private network, often made up of competitors. Commonly with a private permissioned blockchain network, there are rules for which parties, generally businesses, can set-up a node and be involved in the decentralized system of data exchange on the network. The Institutes RiskStream Collaborative provides an excellent example here.

RiskStream is the largest blockchain consortium in insurance, with over 30 leading carriers, brokers and reinsurers as members. RiskStream members lead all areas of the consortium's governance and activity. For example, insurance member companies and leadership work with RiskStream staff to prioritize use cases for blockchain and launch working groups to design applications. RiskStream has worked with technical solution providers, like **Kaleido**, to create an enterprise blockchain platform, called Canopy, and build decentralized applications on the platform that can streamline the sharing and verification of data. Canopy allows for each member to stand up blockchain-enabled nodes, which can be integrated to core systems to enable data exchange and verification.

There are a lot of multiparty business processes within insurance for which blockchain applications can help provide operational efficiencies. RiskStream is currently inspecting use cases in personal lines, commercial lines, reinsurance and life & annuities. For product exploration and development, the RiskStream Collaborative leverages RiskStream Labs, a blockchain innovation hub designed to form working groups and accelerate innovation efforts across various sectors, prioritizing consortium-wide resource utilization on use cases of the most interest to the industry.

Some Key RiskStream Use Cases

Auto Sector

The lead use case for the RiskStream network is the RAPID X solution for the First Notice of Loss data sharing within the personal auto sector. This decentralized application is expected to advance to production later this year.

Life and Annuities Sector

Another decentralized application RiskStream is working on is called the Mortality Monitor, which focuses on the Life & Annuities sector. This use case provides the ability for carrier members to share verified and validated information on a policyholder who's passed away, reducing manual intervention, cycle-time to settle a claim and enabling proactive service to the beneficiary.

Commercial Sector

Other use cases in commercial lines, like Surety Bonds – Power of Attorney verification, are not far behind these two decentralized apps. Many other use cases are in the less mature area of RiskStream labs and there are hundreds of other enterprise blockchain use cases in the backlog.

RAPID X – RiskStream's First Notice of Loss Data Sharing App for Personal Auto

RiskStream's application which is furthest along is called RAPID X. The personal auto insurance industry lacks an efficient and standardized process for exchanging first notice of loss data from carrier to carrier after a loss event. Policy holders are dependent on their insurance carriers to complete and settle the claim in order to provide the necessary reimbursement so they can complete their recovery from the accident. Manual and inefficient data sharing processes between carrier and their systems increase claim reporting and resolution time and cost, affecting customer satisfaction.

As the auto insurance industry struggles with macroeconomic challenges, such as inflation, and an increasingly competitive landscape, attention to operational efficiency and policyholder satisfaction is becoming increasingly important. The ability to exchange data between carrier claim systems across the P & C sector more quickly and cost effectively can have a positive impact. Sharing this data requires a reliable and secure network and an application tool to facilitate the exchange between the large variety of claim platforms. The RiskStream Collaborative's private permissioned blockchain platform, which is industry certified and meets security, regulatory and compliance requirements could provide the network which solves this problem.

The RiskStream Collaborative's RAPID X first notice of loss data sharing solution enables the seamless exchange of information between carrier claim systems, through end to end integration to RiskStream's Canopy private permissioned network. The RAPID X First Notice of Loss data sharing solution provides the ability to share and update loss data privately with the other carriers participating in the loss event, and has an additional ability to match claims based on an algorithm developed by RiskStream member companies.

The RAPID X First Notice of Loss data sharing solution running on the Canopy network sets the stage for large-scale decentralized multiparty exchange of loss data and related information across the complete claim cycle. This exchange might include other ecosystem participants such as rental car companies, auto repair shops, and other industry collaborators, further simplifying processes and increasing efficiencies. It also provides the foundation for other, novel applications built by solution providers, to leverage.

RAPID X – How Does It Work?

The RAPID X First Notice of Loss Data Sharing process flow begins with an accident which occurs between two policy holders from different insurance companies. The insureds contact their respective carriers and/or producers, who capture the information provided on the loss event and initiate the first notice of loss process in their claim systems.

Figure 1:

Personal Auto | RAPID X Process Flow
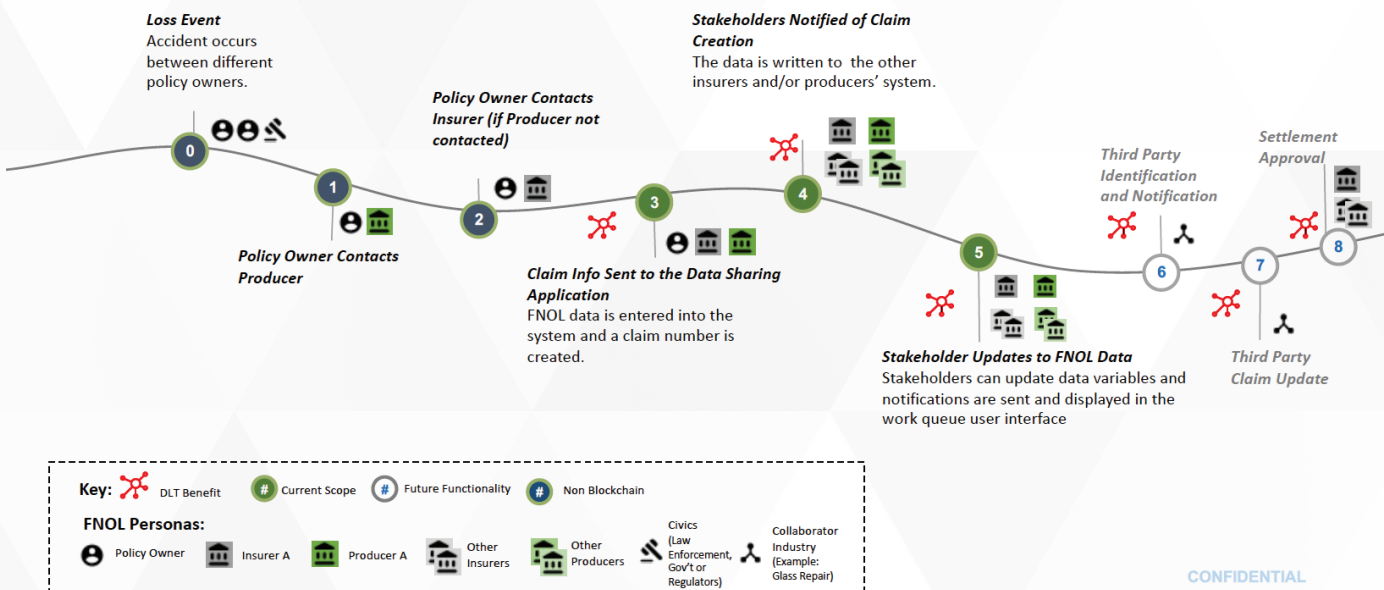
The next step in the process, the exchange of information with the other carrier involved in the loss, is where the RAPID X solution and the Canopy blockchain network facilitate an improved process. The blockchain network provides an immutable single source of truth. Once the loss information has been entered in the carrier claim system, the RAPID X solution provides the ability to share that information directly, digitally and securely with the other participating carrier, eliminating the need for phone calls, emails or other time consuming methods of exchanging information. Using this system, the need for additional data providers is also reduced. As carriers update the information on the claim, updates are shared on the network and imported into each carrier's claim system, allowing for a more time and resource efficient process. The RAPID X application also has the ability to match two claims which are submitted independently, saving time and reducing potential errors on both sides. Once the data exchange has been completed, the network is available to support other phases of the claim cycle.

Benefits of Rapid X

There are five key benefits to the carriers involved in leveraging the Rapid X solution.

1 Reduction in Claims Intake Time: The first carrier to receive information on an FNOL from their policyholder enters the FNOL data into their respective claims system. This system is integrated to their Canopy node, which sends that information in a private permissioned manner to the second carrier's node. The 2nd carrier's node may allow for straight through process where their node's integration allows the information to flow directly into their claim system. So, by the time their policyholder calls in, they may already have information on their claim, helping to shorten informational intake time.

2 Improved Data Sharing: According to RiskStream Collaborative member carriers, a significant back and forth related to claims information sharing generally takes place between carriers. For example, it's possible that carrier 1 and carrier 2 have up to five exchanges back and forth seeking to understand pieces of data or fill in missing data. This data exchange is often done via phone calls or e-mail from carrier to carrier. The Rapid X solution allows for a more automated data sharing capability to occur, cutting down on the time spent data sharing between the two carriers.

3 Reduction in Reliance on Vendors for Claims Pre-fill: Data intermediaries have assisted insurance carriers in reducing cycle times by providing claims pre-fill services. These services have allowed carriers to gather additional information, analyze that information and act on the information. These services are very valuable, but they are also costly to the carrier as the vendor requires payment for leveraging the service. The RAPID X solution allows for carrier-to-carrier exchange of information without a data intermediary involved. Therefore, significant reduction in the cost of external vendor prefill services is possible, while simultaneously obtaining similar benefits.

4 Simple Liability Determination: The RAPID X solution has an automated feature which allows carriers to automate liability determination in certain specific instances. This feature, known as simple liability determination, provides for more immediate straight-through processing of a claim when both carriers agree one policyholder was 100% liable. RiskStream members state that about 1/3 of all claims are associated with a 100% liability determination known, and the process of exchanging that information to make a determination can be automated with RAPID X.

5 Improved Customer Satisfaction: It's been shown repetitively in claims-related research that the faster a claim is resolved, the greater the customer satisfaction. RiskStream's RAPID X solution provides the ability for carrier systems to work with one another to expedite the resolution of a claim, and therefore, boost customer satisfaction for the carriers involved.

Where RAPID X Could Go: Key to the success of a private blockchain-based network is the participation of the personal auto industry players. In addition to providing benefits to the insurance carriers, the establishment of a common platform for sharing loss information can benefit other participants in the claim settlement process, including:

Repair services	Rental Car Companies	Salvage Yards	Bank / Payment Providers	Medical Services	Regulators	Law Enforcement	And More

The RAPID X solution is a foundational solution, in that the data provided carrier to carrier could be leveraged for other solutions. For example, during a total loss, the sharing of portions of the FNOL data that was exchanged with RAPID X solution may reduce the time spent to obtain the salvage title, thereby providing further efficiencies. Overall, the foundational solution may lead to downstream efficiencies across a variety of auto claims oriented processes.

Quantifying Benefits and Costs of RAPID X

The total number of multi-party FNOLs reported for personal auto in the US is estimated to be 9,844,577 annually. This estimate, which is likely very conservative, is pivotal to attempt to estimate the quantitative benefits of the RAPID X solution. This benefits analysis attempts to quantify only the five factors mentioned in the preceding section. The goal is to measure the benefits and costs of adoption the platform industrywide.

Assuming full market adoption, the quantitative estimates for the five key benefits to the carriers involved in leveraging the Rapid X solution are:

Assumptions	Estimated Annual US Personal Auto FNOLs	9845000	Source: NAIC Auto Database Report, RSC Estimates for TX Notes: This model leverages incurred claims counts and adds BI and PD claim counts together as FNOLs may be higher.
	Assumed Average Wage	$20/hour or $40,000 annual	Source: Payscale: https://www.payscale.com/research/US/Job=Claims_Representative/Salary/c38a6525/Phoenix-AZ-Customer-Service
Claims Intake Estimate	Average Time Spent on Claims Intake (per FNOL)	15 minutes	Source: RSC Member Companies
	Average Time Saved on Claims Intake (per FNOL)	3 minutes	Source: Accenture
	Total Annual Hours Saved - Claims Intake	492,250	Calculation
	Claims Intake Savings	$9,845,000	Calculation
Data Sharing Estimate	Average Time Spent on Claims Data Sharing (per FNOL)	12 minutes	Source: RSC Member Companies
	Average Time Saved on Data Sharing (per FNOL	6 minutes	Source: Accenture
	Total Annual Hours Saved - Data Sharing	984,500	Calculation
	Data Sharing Savings	$19,690,000	Calculation
Vendor Pre-fill Estimate	Vendor Prefill Estimate - Amount of FNOLs Impacted	3281667	Calculation and Assumption: Assumed 1/3 of claims leverage pre-fill
	Vendor Prefill Savings	$22,971,666	Assumed to be between $3 and $12 per claim; used $7
Simple Liability Determination Estimate	Average Time Spent on Claims Liabilty Determination (per claim)	15 minutes	Assumption from RSC
	Average Time Saved on Claims Liability Determination (per claim)	9 minutes	Assumption from RSC
Low-End Savings	Annual Savings without Customer Satisfaction Estimate	$61,957,866	Calculation
Customer Satisfaction Estimate	Customer Satisfaction Savings	$111,117,459	Calculation: Leveraging findings from a Posser/Browne study on auto insurance customer satisfaction impact on insurer expenses; Assumes a 1 point improvement industrywide on JD Powers Customer Satisfaction Score (ranges 1-1000 point scale), which is used with the study's regression findings to arrive at the overall expense improvement from customer satisfaction.
High-End Savings	Annual Savings with Customer Satisfaction Estimate	$173,075,326	Calculation

In total, the RAPID X app has potential to save the US auto insurance carriers anywhere from $62 million annually to $173 million dollars annually. The RiskStream Collaborative have developed a company specific quantitative model, based off the model above, that takes into each specific company's market share size within personal auto, industrywide adoption estimates by year and associated application run costs. This model reveals company-specific profitability estimates based on these other estimates.

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* According to recent auto claims statistics, the number of incurred auto bodily injury (BI) claims in the US (without TX) was 1.837M and the number of incurred property damage (PD) claims in the US (without TX) was 7.220M. Estimates reveal that these numbers would increase to about 1.996M for BI claims and 7.847 for PD across the entire US, if TX was included. In order to measure the benefits of the RAPID X solution an estimate on the number of auto first notice of loss reported across the US is needed. The total number of incurred auto claims may be a good proxy, but it's possible other claims are registered and not included within. Therefore, this report assumes that BI claims and PD claims are completely separate. So, in other words, this report estimates that total US FNOL was 9.844M (7.847M PD claims plus 1.996M BI claims).