



## LEDGERTECH—BHARTI AXA CASE STUDY

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# Enhancing Efficiency, Speed and Customer Experience in Motor Accident Insurance Claims Processing

Ledgertech's Corda-based insurance solution is enabling leading Indian insurer Bharti AXA to process motor damage claims far faster, at dramatically lower cost and with much greater transparency for all parties. And with plans in hand to add further enhancements and extend the solution to more classes of insurance, the benefits to date are just the start.



Ledgertech's solution has had a transformational impact on our end-to-end claims processes—reducing our cost-per-claim by around one-fifth, while also boosting speed and providing customers with a far better experience. It's a win-win in multiple dimensions.

Amitanshu Gupta  
Head of New Products, Bharti AXA

# Ledgertech's motor accident insurance claims solution—at a glance

**Platform:** Corda Enterprise, R3

**Application builder:** Ledgertech

**Early Adopter:** Bharti AXA



## About Ledgertech

**Ledgertech** was established in 2018 with a clear goal: driving digitalization and automation in general insurance by leveraging new technologies including blockchain, AI and machine learning. In pursuit of this mission, the company has leveraged R3's Corda Enterprise platform to develop an insurance solution designed to handle the entire underwriting and claims process end-to-end. Ledgertech has recently completed pre-production testing with Bharti AXA, putting the blockchain application to work across the company's motor claims business. The results were dramatic.

## The industry problem

The motor insurance claims process in India is fragmented, complex and dominated by manual processes and handovers. As one of India's leading motor insurers, Bharti AXA handles hundreds of thousands of claims every year. It is a heavily manual and time-consuming process that involves lots of paperwork, phone calls and emails—resulting in high costs, low margins and poor customer experience.

## The solution

The Ledgertech application used by Bharti AXA integrates and streamlines the motor claims process end-to-end. First, online real-time damage reporting, with digital "proof of loss" is provided via photo evidence directly to Bharti AXA by the customer; second an online recommendation is made to the customer of the best value Bharti AXA-approved repairers; and third, authenticated, tamper-proof data sharing is enabled on blockchain with regulators and other insurers in respect of the customer's no-claims credits.

## The outcome

Running Bharti AXA's end-to-end claims process on Ledgertech's platform, built on R3's **Corda Enterprise**, significantly reduced overall claims management costs, and cut the time to complete damage assessments to minutes—rather than hours or days. Bharti AXA now plans to deploy the solution on a wider scale. The app on the customer's smartphone provides a much-improved customer experience by relieving customers of the need to fill out paper forms or talk to a call center, and giving them greater visibility into what is happening at every stage. As Bharti AXA takes the solution into production, further enhancements are planned, including industry-wide sharing of no-claims bonus (NCB) information, competitive bidding between motor workshops, and direct integration with vehicle manufacturers for sourcing spare parts.

## The pain point

### The disjointed legacy impacting insurance claims processing

By their nature, processes in the global general insurance industry—including in motor insurance—involve multiple parties sharing a wide array of information and documents. Traditional manual methods for managing these processes can lead to delays and inefficiencies, as well as creating a lack of transparency about who is doing what when, and opening up risks of errors and fraud. Many of the biggest issues that insurers face are around claims management, underwriting and the whole cycle from loss notification through claims processing, up to settlement of the claim.

In India, when a customer has an accident resulting in damage, they must first take the damaged vehicle directly to a repairer for damage assessment. The insurer then has to arrange for an assessor to coordinate directly with the repairer to discuss an estimate for the repairs. The insurer goes on to manage and process the claim in coordination with the customer and the repairer in line with the policy. Overall, it is a heavily manual and time-consuming process that involves lots of paperwork, phone calls and emails, and can take several weeks to complete.

Ledgertech CEO Eran Tirer explains the pain point that Ledgertech aimed to address: “Bharti AXA handles many thousands of claims per month, using in-house damage appraisers who are each capable of handling 20 to 24 claims a month,” he says.

**“ We and Bharti AXA felt that by applying our blockchain solution we would be able to achieve a significant reduction in overall claims costs, as well as providing a better, more digital experience to Bharti AXA’s customers and reducing the risks of fraud or errors.**

**Eran Tirer, CEO, Ledgertech**

“About 70% of the claims are close to the excess fee amount, meaning it’s touch-and-go whether it makes sense for the customer to make the claim or pay to fix the car themselves. However, these smaller claims are still being handled using the same process as larger volume claims, meaning they use exactly the same resources, manpower and costs to process and manage as the remaining 30% of claims that are much larger. In addition, the No Claims Bonus (NCB) discount is not managed digitally, creating a higher risk of fraud.”

All of these factors make the claims management process a good fit for blockchain technology. All the stakeholders can come together on the same network and share information instantaneously, seamlessly and securely. Blockchain insurance technology provider Ledgertech collaborated with leading Indian motor insurer Bharti AXA to transform its entire claims process end-to-end, using a solution that Ledgertech has developed on R3’s Corda platform.

He continues: “We and Bharti AXA felt that by applying our blockchain solution we would be able to achieve a significant reduction in overall claims costs, as well as providing a better, more digital experience to Bharti AXA’s customers and reducing the risks of fraud or errors.”

# Delivering the solution

## Choosing the right platform and blockchain partner

Ledgertech was founded by CEO Eran Tirer and CTO Omer Caspi—each with deep experience and insight in blockchain and the insurance industry. In 2018, after time at IBM, they combined these two areas of expertise by setting up Ledgertech.

In developing the solution for Bharti AXA, a key decision for Ledgertech was which commercially available blockchain solution to use to underpin it. Having previously worked with IBM, Ledgertech had begun using the IBM-backed Hyperledger Fabric platform. However, the company was soon introduced to

**R3** by a former chief architect from one of its insurance customers, and were invited to join the R3 Insurtech Challenge. Ledgertech developed a healthcare insurance solution that was selected as a finalist and this gave Ledgertech experience of working with R3 and its ecosystem. Combined with the Corda platform's technical advantages, this experience convinced Ledgertech to switch to R3's Corda Enterprise, and use it for the Bharti AXA project.

Ledgertech's CEO Eran Tirer explains: "As our developers learned more about Corda, we found it more suitable for the needs of our customers, and decided to focus on it as our blockchain platform of choice. The Corda ecosystem and user base are unique: two leading blockchain consortiums for insurance—B3i and RiskStream—are based on the Corda platform, and more than 40 enterprise **insurance companies** are using a version of Corda. The very good working relationship we've developed with both R3 and B3i was also a contributing factor. After meeting the Chief Innovation Officer of MunichRe to discuss the possibility of expanding our motor insurance solution to include reinsurance

treaty management, we suggested that the Bharti AXA app should use Corda Enterprise instead of Hyperledger Fabric, so we could integrate with the B3i platform and link Bharti AXA with MunichRe for that purpose. It was definitely the right decision." "The goal of the project with Bharti AXA was to build and implement an application based on their core insurance platform and pre-defined motor insurance business rules, customized to test out automation work that was previously handled manually," says Tirer.

He continues: "This included three key elements. First, online real-time damage reporting, with digital 'proof of loss' provided via photo evidence sent directly to Bharti AXA by the customer; second, online recommendation to the customer of Bharti

AXA-approved repairers who could deliver cost-effective or discounted repair services; and third, authenticated, tamper-proof data sharing on blockchain with regulators and other insurers in respect of the customer's no-claims bonus (NCB). When consumers in

India want to switch plans, insurance companies send customer data to other insurance providers so they can get the right NCB. This is currently done manually—so our solution makes it faster and lower-cost while also making errors and fraud less likely."

Based on the AI assessment, smart contracts then decide how to administer the claim. Damage below a certain threshold triggers an immediate settlement; mid-level damage results in a video call with a damage appraiser; and the highest level of damage means the claim is managed in the traditional way, with a damage appraiser being sent to look at the car, make an estimate and negotiate with the workshop.

Ledgertech's CTO Omer Caspi adds that Corda Enterprise has major technical advantages—with one of the biggest being its permission-based approach to privacy.

### Ledgertech moved from Hyperledger Fabric to Corda:

"Corda Enterprise has major technical advantages—with one of the biggest being its permission-based approach to privacy. There are several unique differentiators to Corda Enterprise that makes it ideal for the insurance industry.

Omer Caspi, CTO, Ledgertech

“There are several unique differentiators to Corda Enterprise that makes it ideal for the insurance industry,” he explains. “For example, if you want to share information between two participants on the network without making it available to all participants, then the Corda platform is much better than the alternatives. This is crucial for a ‘co-opetitive’ state where several insurers would like to share part of the information but not all of it. Additionally, having access to the B3i network that is already connecting more than 30 insurers makes it easier to onboard new customers. Also, the Corda platform’s smart contract implementation and use of ‘accounts’ are great for several use cases in insurance, especially when it comes to complex commercial programs. We chose Corda Enterprise as it addresses long-term technical concerns right away.”

## The results achieved

**A double digit percentage reduction in operating costs, higher speed, greater transparency throughout the value chain and lower risk of fraud or mistakes—all accompanied by a better customer experience**

Running Bharti AXA’s end-to-end claims process on Ledgertech’s platform, built on Corda Enterprise, significantly reduced overall claims management costs and cut the time taken to complete damage assessment of claims to minutes rather than hours or days. Bharti AXA now plans to deploy the solution on a wider scale.

Based on the POC, Bharti AXA foresees several benefits from the Ledgertech solution. Costs are reduced significantly, both by decreasing the need for human interaction and also reducing the number of damage assessors needed, since the solution enables real-time reporting by the customer via video and photo evidence.

The solution also enables more secure data sharing with other parties in the ecosystem, while saving further cost and time by allowing Bharti AXA to send customers to the company’s preferred garages for damage repair. Overall, taking into account all the expenses including garage repair costs, damage assessor salaries and infrastructure costs, the net result is proof that the solution will provide a significant cost reduction per claim.

Ledgertech’s CEO Eran Tirer comments: “As soon as the customer has entered the details it all happens in a matter of minutes through customer self-service. The younger generation expect a fully digital service. They don’t want to have to fill out paper forms or talk to a call center—they want to do it through an app, and know what is happening with their car. If a customer is happy with how their insurance company handles their claim, then they’re much more likely to want to work with them in the future.”

**“The team and I were extremely impressed with the Ledgertech solution and team and their timely completion of a challenging POC within just one month.**

**Amitanshu Gupta,  
Head of New Products,  
Bharti AXA**

## Next Steps

### Accelerating Corda-enabled collaboration between multiple parties

As Ledgertech's motor claims management solution moves into production, plans are already in hand to expand the platform, focusing on expanding the NCB data sharing at scale.

The company is currently onboarding car manufacturers so insurance companies can order spare parts directly, cutting out the "middle man" in the workshop. This will give predictability for the car manufacturers and reduce cost for insurance companies, while making all the billing and processing easier.

Eran Tirer explains: "A small workshop might handle three Honda collisions per month, maybe buying five or 10 spare parts from the Honda dealer. Bharti AXA deals with thousands of smashed vehicles per month, so buys many thousands of spare parts every month. Bharti AXA's ability to negotiate a good deal is much better than any workshop's, and everybody saves money."

A further route to higher efficiency and lower costs will be to introduce competitive bidding between workshops. "A component that we have in our product is the ability for workshops to bid to handle repairs," says Eran Tirer. "We'll activate this when the solution goes live.

Once a claim is submitted, the workshops in the area—depending how available they are – might want to offer a lower price to get the work. This is another way for the insurance company to increase savings by using the operational efficiency our solution provides."





## Continue the conversation

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## About R3

R3 is an enterprise blockchain software firm working with a broad ecosystem of more than 300 participants across multiple industries from both the private and public sectors to develop on Corda, its open-source blockchain platform, and Corda Enterprise, a commercial version of Corda for enterprise usage.

The Corda platform is already being used in industries from financial services to healthcare, shipping, insurance and more. It records, manages and executes institutions' financial agreements in perfect synchrony with their peers, creating a world of frictionless commerce. Learn more at [r3.com](https://r3.com) and [corda.net](https://corda.net).

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