



Let's Solve

POV



Intelligent Automation - A Boon for the Insurance Industry

Introduction

Despite modernization, some insurance companies dealing with life and General insurance are still stuck in time-consuming back-office processes. This involves huge volumes of repetitive business operations and monotonous clerical tasks that often pose a challenge in fulfilling growth targets and delivering quality customer service. Such tasks also add to operational costs, further limiting the pace of growth, and resulting in sub-par products & services, making it hard to maintain a strategic competitive advantage in the Insurance market.

One of the key tenets of Intelligent Automation (IA) is Robotic Process Automation (RPA). Being reported as the fastest growing segment of the global enterprise software market in 2018 by Gartner, RPA is already helping insurers build a high-growth responsive business while optimizing costs. Software bots emulate transactional, administrative tasks that are repetitive, rules-based and require minimal decision making or strategizing. When RPA is complemented with other cutting-edge digital technologies such as Advanced Optical Character Recognition (OCR), Machine Learning, chatbots and cognitive technologies, it goes beyond basic automation by learning and evolves as it automates, thereby delivering exponential value.

Transforming Insurance with Intelligent Automation

Intelligent Automation is already changing the way Insurance companies operate. The industrious workforce of software bots not only emulates repetitive and rule-based transactional and administrative tasks, but also takes care of certain levels of elementary decision-making. Human domain experts are then free to focus on more strategic tasks that involve reasoning, judgment, and emotional intelligence. This digital workforce of bots is getting smarter with Cognitive Automation enabled by transformational technologies like Machine Learning (ML), Computer Vision, Artificial Intelligence (AI), and Natural Language Processing (NLP). The typical areas where Intelligent Automation is making a huge difference are:

- ✓ Policy Administration and Servicing
- ✓ Claims Processing
- ✓ Regulatory Compliance
- ✓ Sales and Distribution
- ✓ Renewal Processing
- ✓ Underwriting
- ✓ Process and Business Analytics
- ✓ Finance and Accounts

Some key functions that are being automated by Intelligent Automation include:

- ✓ Data entry into various systems including web portals, desktop applications and legacy systems
- ✓ Data extraction from various document formats such as Word, Excel, PDF documents, images and emails
- ✓ Data retrieval and updates to various types of databases such as MS Access, SQL, Oracle etc.
- ✓ Interactions with web services and reading writing XMLs, JSON file formats
- ✓ Automation on thin clients as well as thick clients

Case in point: Insurance underwriting submissions

In the Insurance industry, the underwriting submissions intake from managing general agents (MGA) and direct business (in-house underwriters) includes creation of new submission, its clearance and the binding of the policy. The end-to-end submissions intake process can be automated, including submission requests from MGA systems, via a web-service or from Direct Business through emails for automating client creation, submissions, clearance and policy binding.

Multiple systems will typically be involved in the end-to-end process such as:

1. A third-party system sending in submissions in XML/ JSON files through a Web Service
2. SQLs/tables in a database
3. Multiple screens on a front-end application
4. Submissions mailbox (e.g. Outlook) with possibly a custom outlook data entry add-in/form

This process is complicated, long-winded, and can cost Insurance companies thousands of manhours and operational overheads. They need a faster process that free up underwriters to focus on the core business rather than mundane operational activities.

Automating MGA submissions intake

A powerful IA solution can consist of a robust framework based on the below tenets:

1. Orchestrated automation using queues and transactions
2. Unattended dispatcher and performer bots for submissions clearance and policy binding.

The MGA submissions intake automated process can be split into two parts:

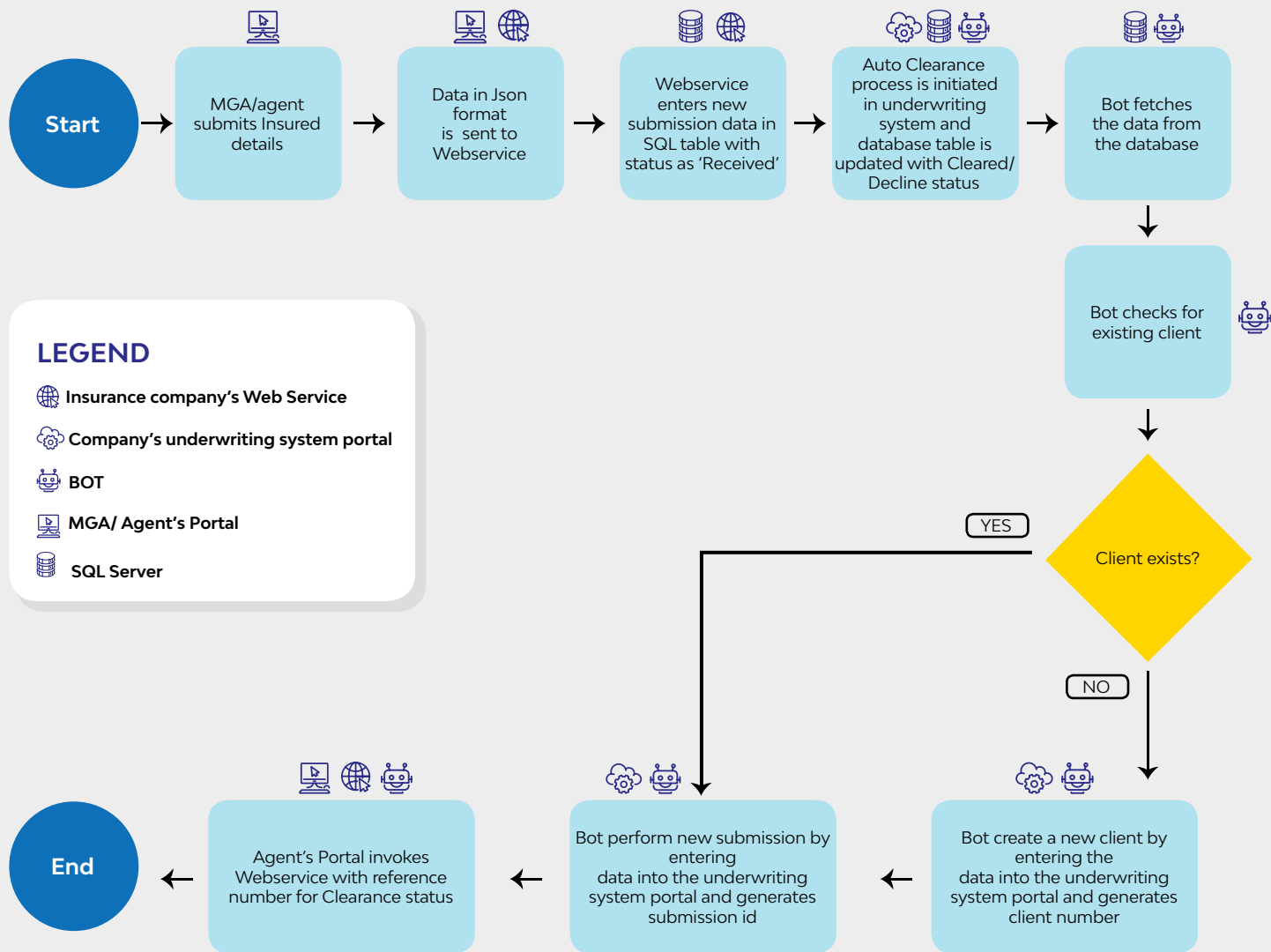
Submission entry and clearance

The MGA will feed new submission information of the insurer into its portal, which will further invoke a web service. This web service will update the submission data into the database storing the entire JSON received.

The submission entry bot will fetch this JSON data from the database, de-serialize it and convert it into data dictionary. Furthermore, the bot will also check if the client exists already. If it does, the bot will perform the submission by entering this data into the insurance company's portal and update the generated submission number into the database. If the client does not exist, the bot will create a new client, update the client number in the database and then perform the submission.

The Automated Clearance process will concurrently run in the underwriting system portal for the submission entered. This process will then update the status to reflect the relevant status whether the submission has been "Cleared", "Declined" or a "Clearance" is requested. The submission entry bot will update the database table (e.g. SQL database) with the Submission Status.

The MGA portal will keep checking for a clearance response by hitting the webservice with the reference number every few seconds.

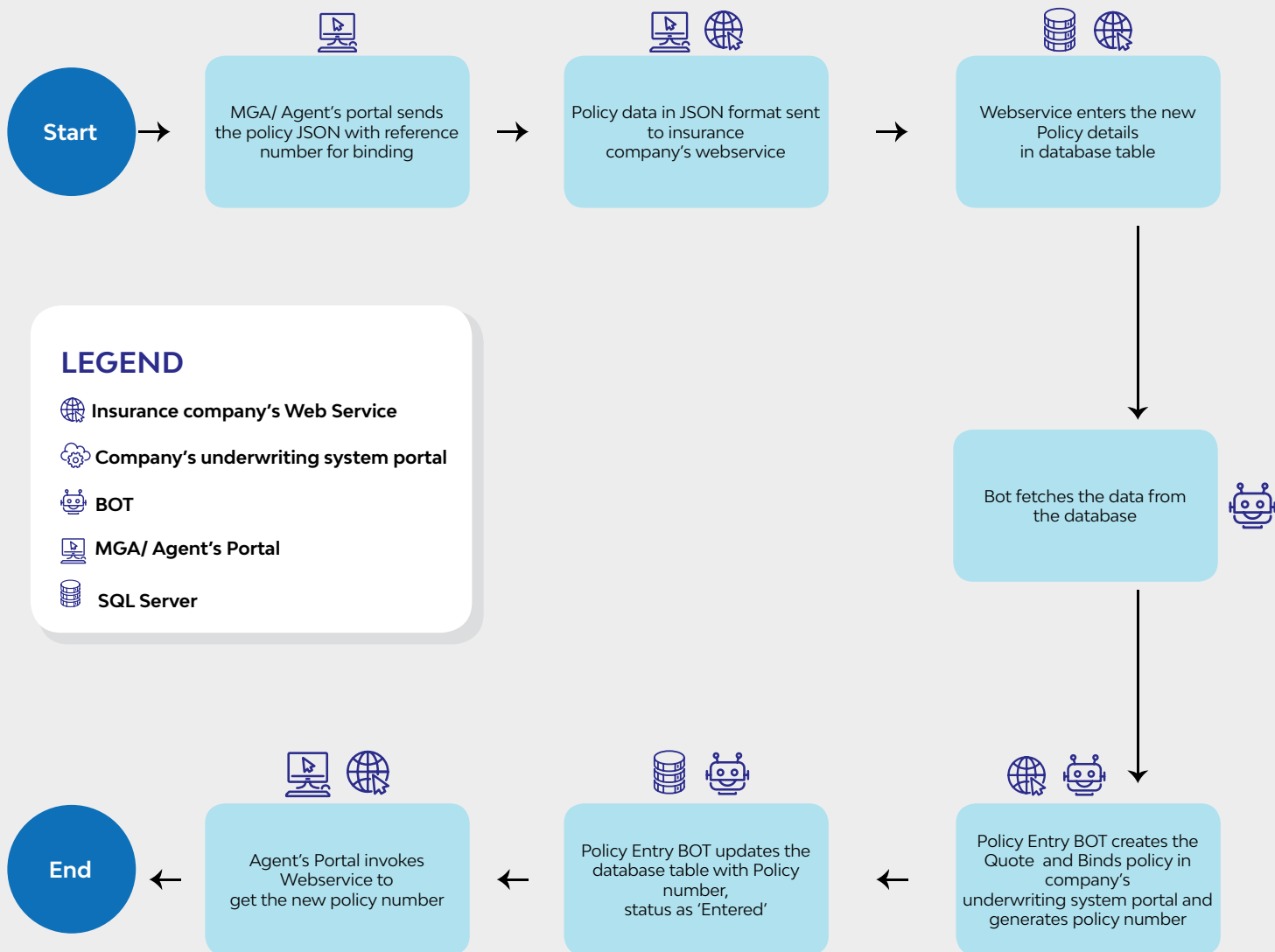


MGA: Submission entry and clearance

Policy binding

Post submission clearance, the agent will initiate the quoting and binding process in its portal and on binding a quote - the policy information will be sent in JSON format to the company's webservice with the matching reference number used to identify its relevant submission ID. Webservice will then enter this new policy entry into the database.

The Policy Entry bot will pick up the policy data from the database in JSON format, create a quote and then bind it in the company's insurance portal by entering the relevant data into the portal. The bot will also update the database with the newly generated policy number and mark the status as 'Entered' thereafter.



MGA: Policy binding

Automating direct business

The Direct Business submissions intake end-to-end process can effectively use RPA with cognitive OCR combined with machine learning to yield incremental accuracy as the ML model learns over time, provided there are simple to medium complexity documents with decently structured and uniform layouts. A 'human in the loop' is inevitable where poorly scanned image-based documents, unstructured emails and manuscripts come into play.

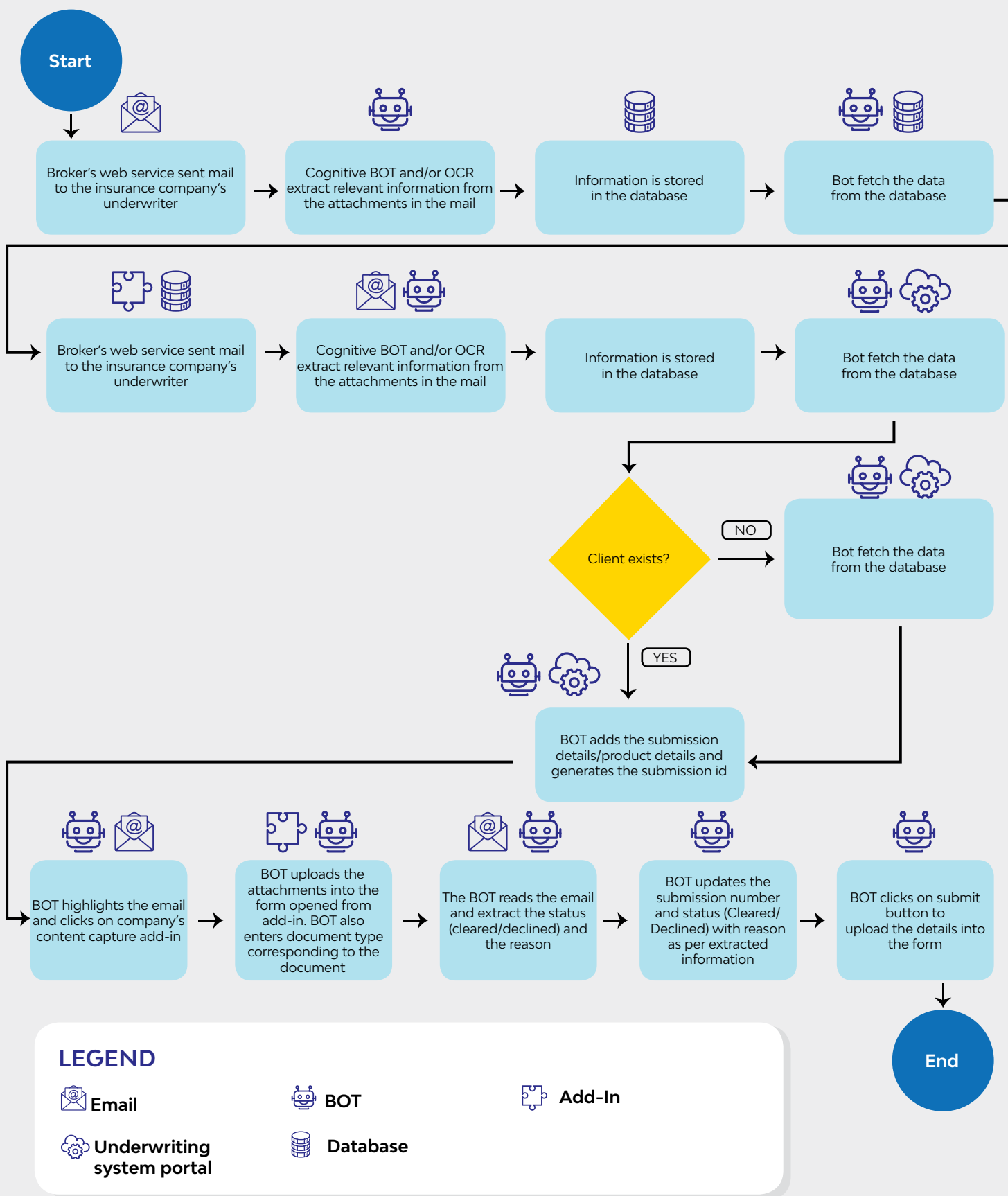
The process will start with a bot scanning underwriting email account for rule-based submissions. The bot will then categorize the emails, extract the relevant email content along with the attached PDF submission forms/documents and feed the data into the underwriting system. The bot can also interact with Outlook add-ins for processing the submissions.

The direct business submission clearance process will typically involve checking the Direct Side Submission Clearance Outlook mailbox which is part of the Insurance company's underwriting office for clearance emails that come in from different brokers. The mails will very likely come with attachments in form of various file types such as PDF documents, Word files, Excel spreadsheets etc.

The cognitive bot with the help of OCR will extract the relevant information from the attachments such as name, address etc. and store it in the database. This data will then be filled by the bot in a predefined add-in likely to be present in the underwriter's mail client, such as Outlook. After entering the status of submission and reason in the add-in an automated email will be sent to the bot's Outlook account.

The bot will now fetch data in JSON format from the database, de-serialize it and convert it into data dictionary. Furthermore, the bot will check if the client already exists. If it does, bot will perform the submission by entering this data into company's underwriting system portal and update the generated submission number into the database. If not, bot will create a new client, update the client number in the database and then perform the submission. The bot will also store the submission number and its corresponding policy type in the database.

The next step would be to mark the submission corresponding its policy along with the reason. To do this, the Insurance company could possibly have its own content capture Outlook add-in. The bot will highlight the mail received in its mailbox by looking at a specific subject line and click on the add-in. In the add-in, the bot will fill the required details, submission clearance status, and a reason and mark the submission.



Direct Business: Submissions

A successful automation of both MGA and Direct Business submissions intake processes could yield the following benefits significantly that can be tangible if measured with the right sets of data:

- ✓ Efficient handling an average load of thousands of yearly submissions
- ✓ Reduction in transaction Turnaround Time (TAT)
- ✓ Reduction in human efforts
- ✓ Reduction in Average Handling Time (AHT)
- ✓ High first-pass yield accuracy interacting with different systems (excluding document extraction)
- ✓ Eliminate errors that would typically be caused by humans

Challenges in implementing IA

Staying in the comfort zone

Several Insurance organizations have not been able to aggressively run successful automation initiatives due to resistance from within the company and an aversion to change. Automation often tends to be considered an overhead, and a lack of synergy between operations and IT further adds to such doubts, thereby lowering the confidence to kickstart automation initiatives.

Optimizing ROI and prioritizing processes

Organizations need to look at designing a robust tool for calculating their ROI, which would include a comprehensive questionnaire on process complexities, technical intricacies and calculations. An over-zealous management could expect RPA to be a magic wand to automate any kind of processes. But, a shallow due-diligence often leads to sub-par results. Some of the costs to be considered is the cost of bots, licensing fees, bot monitoring, support and maintenance costs, costs incurred due to the underlying infrastructure/ applications / system changes, etc. With the right prioritization of processes to be automated, the ROI can be encouraging and fruitful in the long-term. To achieve the right prioritization and ROI, an extremely vigilant due diligence is of paramount importance.

Legacy systems and data standardization

Often Insurance companies have a variety of systems including CRM, ERP, policy admin, claims processing, web applications and legacy systems and that could complicate IA implementations. With the constant churn of data in varying volumes and different formats being generated by various systems, standardizing the data and formats is a big challenge that Insurance companies constantly face. IA implementation will always be a challenge in a frequently changing and uncertain environment. But the right set of tools combined with different complementary digital levers like RPA, OCR and cognitive AI based tools should make things easy.

A tailored suit fits better

The principle of one-size fits all does not really work well with Insurance companies. This is because each of them deals with different data sets, formats and business volumes. So, a customized IA framework is usually required to get the job done with high consistency and reliability. Also, there are several compliances that any Insurance firm needs to follow. Hence, it is imperative that the automation solution allows for integration and customization based on the changing compliance expectations.

Opportunities to implement IA in the underwriting lifecycle

Typical potential RPA enablement cases in the underwriting world in P&C Insurance are depicted in the heat map below.

| UW Life Cycle | Submission to Clearance | Quote to Bind | | | | Bind to Book | Book to Issue | Mid Term Servicing |
|--|--|-------------------------|-----------------------|-----------------------|----------------------------|--|--|---|
| Different Stages | Submission Clearance & Triage | Risk Selection | Rate | Price | Quote | Post Bind Coding | Policy Issuance | Policy Servicing |
| Commercial and Specialty Lines of Business <i>Auto, Property, WC, Marine, Umbrella, GL, Enviro, Property, Health, Casualty, Aviation, Political risk etc..</i> | Document Indexing | Risk Qualification | Capture Exposure Info | UW Quality Assurance | Quote Entry | Premium Booking | Follow up on missing contingencies/Missing Information | Mid term policy changes Premium and Non Premium bearing |
| | Reading Forms & Extracting data | Risk Services | Rating Plans | Schedule Rating | Generate Quote | Billing Setup | Declaration updates and Endorsements | Cancellations, Reinstatements/DNOC, Short Rated |
| | New Submission & Renewal Setup | Reports | Loss Forecasting | Referrals | Manage revisions | Reconciliation of Bind to Book records | Drafting the Policy Document, Issue the final policy to UW & Policy ageing chase | Certificates of Insurance, Additional Mortgage, Renewal Processing, Premium Finance |
| Activities | Applying Blocking & Clearing rules | UW Rules & Guidelines | Rate | Account Pricing | Issue Proposal | UW Follow up on Bind not booked cases | Metric and Adhoc Reporting to stakeholders | Agency Code, Loss Runs, Billing Plans changes |
| | Acknowledgement letters | UW "Go /No Go" Decision | Re Rate | Overrides of Premiums | Notify Stakeholders | Follow up on Open cases to be booked | Manage Documents | Experience Mod, Payroll Changes, Premium Finance |
| | Status Changes – NTU/Declinature & ARH | | | | Binder /Policy Preparation | Monthly Closes | Contract Management | Paper and Electronic filings |

Automation Potential High Medium Low

Heatmap of Underwriting lifecycle in P&C Insurance

Setting up a holistic automation ecosystem in your organization

As enterprises evolve digitally, it becomes imperative to build a holistic automation ecosystem within the organization where multiple digital technologies can co-exist and work towards the same business goals. E.g. RPA combined with other digital technologies like OCR, Workflow Orchestration, Chatbots and Cognitive Automation built on machine learning models is already creating a significant uplift in operational efficiencies across critical functions in the Insurance industry. Personal assistance on submission of important information and guiding the customer on next steps is seamlessly handled by chatbots along with digital interfaces.

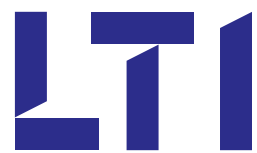
IA backed with predictive business analytics as well as operational analytics has been successful in accurate and fast tracking multiple repetitive Insurance processes in policy administration and claims in turn delivering higher process returns. Advanced OCR capabilities combined with ML would not only help extract and validate data from a plethora of documents, but also help reduce the cost, time and effort wasted in processing these documents prone to human errors. Advanced OCR can be used in many use cases in Insurance like submission documents, quote, policy, claim forms, MTA, renewals, invoicing and so on. Going forward, IA will not just free humans from mundane tasks to perform strategic & value adding roles but also work collaboratively along with their human counterparts to handle end to end role based functions to transform business operations and customer experiences drastically.



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Saurabh comes with a rich and diversified experience of 18+ years in managing multi-million-dollar ADM, Testing & RPA engagements with Fortune 100 clients across geographies and industries including Life and P&C Insurance. In his current role, he is responsible for powering LTI's Insurance customers with tightly integrated Intelligent RPA solutions, ensuring enhanced customer experience and seamless delivery. He is a UiPath and Automation Anywhere advanced certified professional, and also holds other certifications in Project Management, Selenium Test Automation and Google Analytics.



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