



Autonomous Agent : Underwriting Intake Optimizer

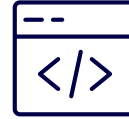
Creating end to end frictionless underwriting

Executive summary



Problem statement

- Unstructured submission data makes quick risk selection decisions more difficult by 60% to 80%
- Less than 50% of critical data capture for risk evaluation is present in the original submission
- Data gathering, validation, and triage are examples of tactical non-core activities that take up more than 50% of UW's time.
- >50% quote needs to be revised due to revised submission exposure



Solution developed

Our solution 'Underwriting Intake Optimizer empowers underwriters and underwriting assistant by providing better risk selection, improving productivity and operational efficiency thereby enabling a frictionless underwriting experience

Key capabilities include identification of data discrepancies and missing information, generating insights using 3rd party data sources and AI/ML models, pre-filling contextualized answers, submission prioritization, AI generated risk score and presenting similar submission insights contextualized to the current submission.



Technology used

- Duck Creek Policy
- Convr
- Precisely
- AHM Model
- LLM
- ReAct pattern based autonomous agent



X-factor (business benefits)

- Reduced application kick out by 70%
- Improved underwriting productivity by >10x
- Improved operational efficiency by 130%
- Improved hit ratio by better risk selection
- Increased pipeline (submission) and enhanced broker engagement
- Improved loss ratio because of better underwriting

Problem statement

- Traditional underwriting in commercial insurance drags profitability and customer experience
- Underwriter spends more than 50% time in non-core activities (such as data upload from unstructured documents, data gathering, validation, and triage)
- Unstructured or incomplete submission data makes risk selection decisions more complex and only 50% of critical data is captured for risk evaluation from the original submission
- More than 50% of quote needs to be revised with multiple hand-offs and frictions along the way
- Need for better risk selection with data from internal sources, external partners and/or open data platforms
- Need to reduce underwriting costs by eliminating manual work and optimizing processes
- Need to meet growing customer and agent expectations by reducing turn around time and increasing conversion rates

Solution Developed

To transform the underwriting experience, we integrate the power of our partner solution CONVR along with Cognizant's in-house developed Generative AI powered Autonomous Agent to automate underwriting workflows involving subjective decision-making and present the insights generated by the AI/ML solution Optimizer to the underwriter in a UW 360 Dashboard.



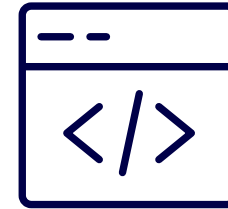
Submission intake optimizer

Address data gaps in submissions to accelerate underwriting



Underwriting autonomous agent

Automation of underwriting workflows involving subjective decision making



Underwriting 360 cockpit

AI powered dashboard and data driven toolkit for better risk selection

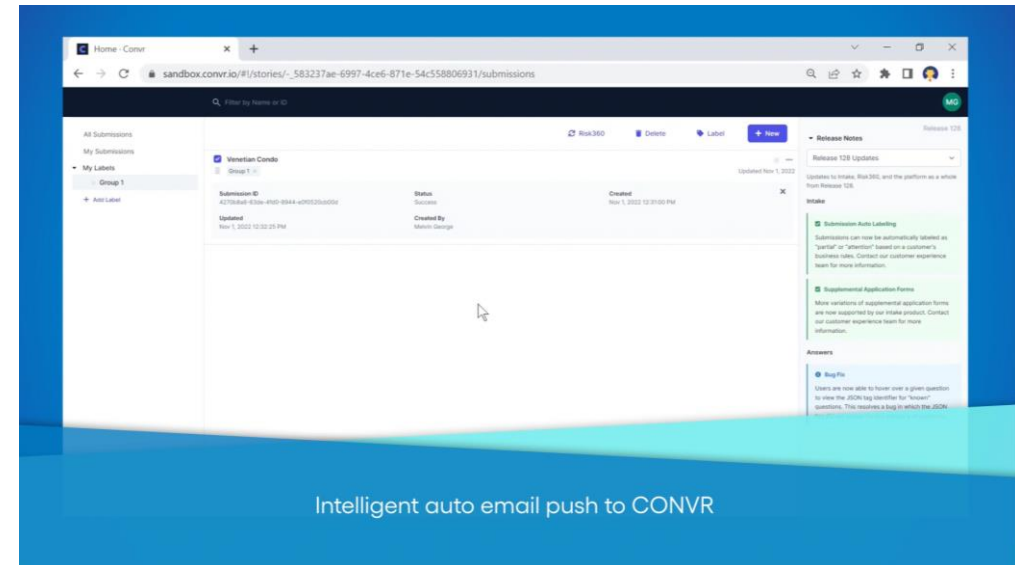
What happened? ... Incident

Let's say the Broker sends multiple emails with both structured and unstructured content for a commercial property quotation to the Underwriter. The broker expects the underwriter to come back with the best quote in the shortest time.

Check how Underwriting Intake Optimizer can transform the underwriting experience

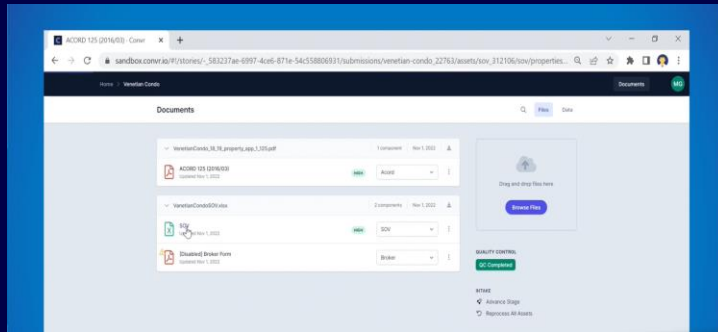


Underwriter opens UW 360° Cockpit, an AI powered tool with an intelligent and interactive dashboard that assists in prioritizing the cases that needs to be focused daily

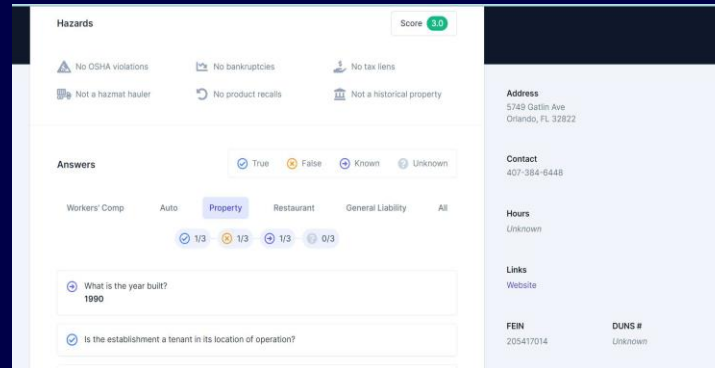


The emails are intelligently pushed to CONVR, where a single submission is created. CONVR's intake module uses computer vision to digitize and normalize unstructured data eliminating manual data entry.

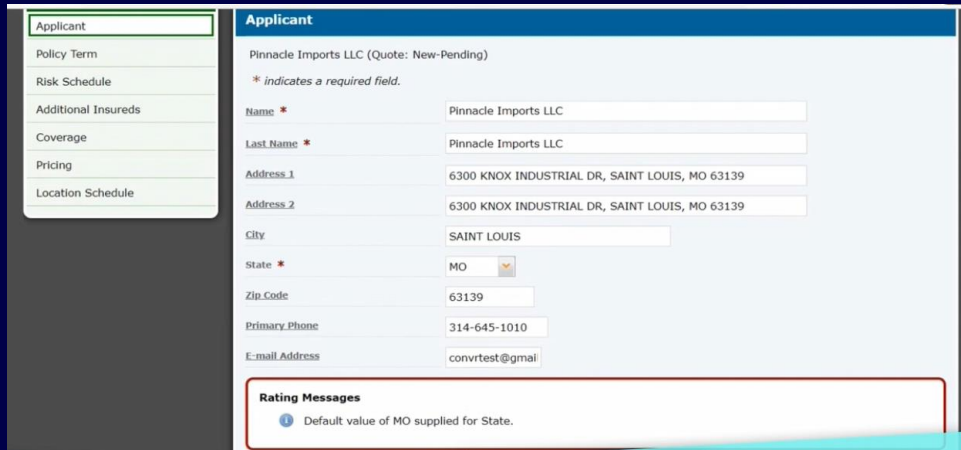
What next?



Underwriting. insights are sourced from business profiles from thousands of data sources

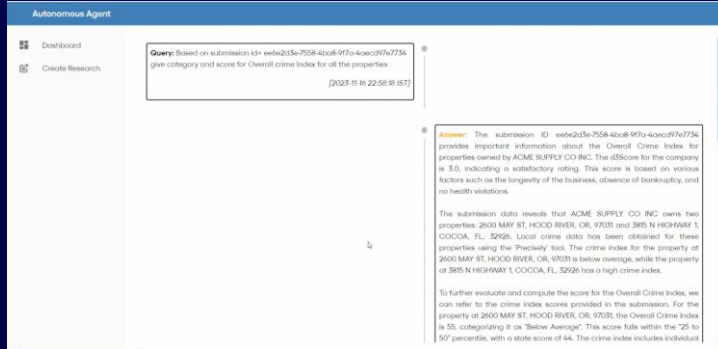


Additionally, the solution prepopulates the application, enabling a quicker STP with prioritization of submissions.

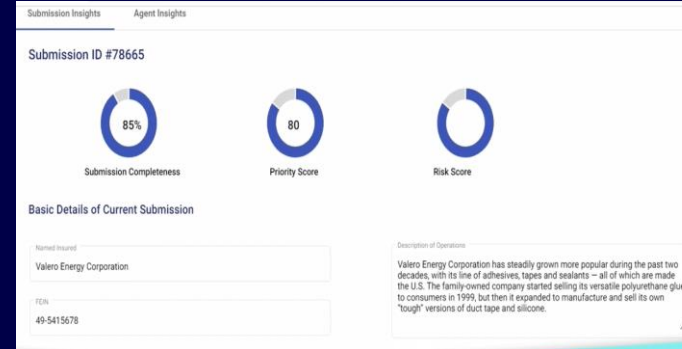


Cleared submission through our solution gets seamlessly orchestrated and pre-filled in the core policy admin platform which completes the workflow end-to-end with minimal manual effort.

What next?



Complimenting CONVR, Underwriting Autonomous agent, assist users in performing research and analysis-oriented tasks. This autonomous agent can understand human queries and act upon them in an unsupervised, systematic, self monitored and self-improving approach providing with additional information on the submissions.



The optimizer module that is integrated with the core system provides similar submission and Agent Insights claim history. Risk and priority score helping in quicker underwriting decisions, providing the right insights.

X Factor – business value

- Reduced application kick out by 70%
- Improved underwriting productivity by >10x
- Improved operational efficiency by 130%
- Improved hit ratio by better risk selection
- Increased pipeline (submission) and enhanced broker engagement
- Improved loss ratio because of better underwriting
- Improved efficiency of Underwriter - quote to bind ratio and renewal ratio
- Improve risk profiling capability at NB underwriting and renewal, improving alignment of written business to risk appetite
- Improve overall customer profitability and broker satisfaction/results

Key capabilities (1/3) – Submission Intake optimizer powered by Convr



Submission Intake Optimizer

Address data gaps in submissions to accelerate underwriting

- Integrated with our AI based submission intake and underwriting platform partner Convr
- Data digitization of unstructured data and documents
- Patented AI model driven insights and intelligence
- Customized data cards based on submission
- Data enrichment via 2000+ data providers;
- Combined with Insurer's data sources to deliver comprehensive view and greater risk selection

Key capabilities (2/3)



Underwriting Autonomous Agent

Automation of underwriting workflows involving subjective decision making

- Autonomous Agent assisted research and analysis- oriented task
- Underwriting data retrieval and analysis on an end-to-end automated basis in a comprehensive and iterative manner through dynamic orchestration and self-improvement.
- A unique approach called self-reflection was implemented to reduce hallucination and improve the accuracy of the agent's responses
- Perform detailed research, analysis and information synthesis thereby leading to faster, informed and efficient decision-making

Key capabilities (2/3)



Underwriting 360 Cockpit

AI powered dashboard and data driven toolkit for better risk selection

- Activity and opportunity list that prioritizes cases based on Analytical hierarchy process
- Provides profitability at submission level and account level
- Monitor and track new business and renewal performance across multiple dimensions (KPIs)
- Overlay several sources of information including correlated 3rd party data

Case study - Azure AI based document extraction

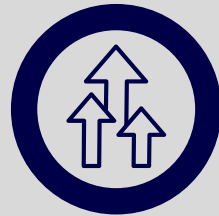
Business challenges

- The client currently uses Hyperscience solution to extract data from New Business Insurance forms which had lower STP (Straight -Through Processing) of only 10% resulting in further manual intervention.

Cognizant solution

- The solution features Azure AI Document Intelligence that works like an OCR engine making use of the Pre-built Layout Model to extract text from all the source PDFs.
- The extracted text is then fed into GPT-4 Vision model and through Prompt engineering, the identified fields are extracted into an output excel.
- Through this solution, more than 95% accuracy at document & field level was achieved resulting in reduced AHT in terms of human in the loop for data extraction and validation.

Business benefits



800%

Improvement in STP (achieved Document Level STP of 94.3%)



50%

AHT savings for the human in the loop process due to high extraction accuracy



25%

Increase in Overall field level accuracy (achieved 99.14%) and Overall document level accuracy (achieved 98.96%)



Thank you