SOLVING BUSINESS RULE EXTRACTION AT SCALE USING VISION AI

SOLVING THE INSURANCE BUSINESS RULES EXTRACTION PUZZLE AT SCALE USING VISION AI.

The extraction of business rules from the legacy application was complex with many variables

99M

Extract business rules from 99M lines of source code by examining the screen behavior for each unique combination

50

Unique rule for every 50 state

11

11 product combinations

3

Business Capabilities – New Business, Endorsement and Special operations (Cancel & Rewrite, Split etc.)

OUTCOME ACHIEVED

70%
Manual Effort

Reduction

70% Manual Effort reduction required in business rules extraction tool complete it on time with quality.

The largest jigsaw puzzle in the world had over 50,000 pieces and took one person 4.5 months to complete. Now imagine a 600,000-piece jigsaw puzzle and only 18 months to solve it! That was the challenge at a top 5 P&C Carrier. Over 600,000 unique UI business rules had to be extracted from a legacy Point of Sales (PoS) system. This system was a critical application that supported Quoting, Policy Issuance and Endorsement functions for all lines of their Personal & Liability products sold through their exclusive agent network. The insurance carrier wanted to modernize this PoS to enhance business capabilities to better understand their customer which enables increased cross-sell and upsell of relevant products, eventually transforming their agents to become trusted advisors.

Like solving a challenging puzzle, analyzing these many business rules requires extensive eyeballing of the legacy application user interface and its source code. Traditional methods would require hundreds of resources in constant engagement with business stakeholders, be prone to errors and impossible to complete in 18 months.

Instead, Infosys supported by the insurer changed the game, using "Vision AI" to harvest the business rules intelligently and accurately without human intervention

The new platform transforms the agent experience by empowering them to become the trusted advisors and sell multiple products offered by the carrier. Migration to the new platform brings additional revenue and increased "Quote to Bind" ratio while providing better experience for the insured. In the world of growing customer expectations, time was of the essence. **Together, Infosys & the carrier used cutting edge solutions for business rule harvesting to accelerate this flagship modernization program.**

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THE SOLUTION

The solution required reimagining software engineering and leap frogging the manual process of business rule harvesting through latest technologies.
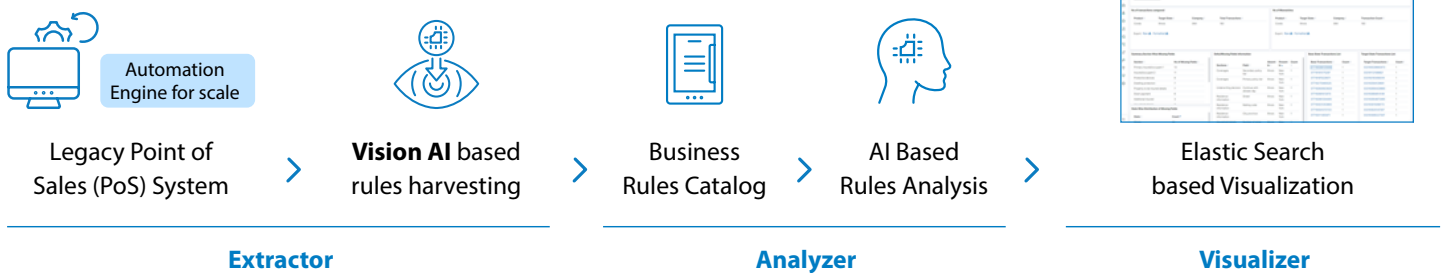
Using Vision AI (EdgeVerve XtractEdge), advanced AI analytics and elastic search capabilities the joint team developed a cognitive rules harvesting solution to seamlessly document, visualize, implement, and test business rules to accelerate the modernization program. This became a paradigm shift in the software engineering process where a substantial amount of manual effort was replaced by Artificial intelligence and Machine learning. Traditionally, over the last few decades,

transformation programs relied on hundreds of engineers manually harvesting and documenting business rules to enable the application development life cycle.

ML models through supervised learning in XtractEdge can locate, isolate and categorize the visual elements in legacy applications and reverse engineering them by correlating dependencies, to record business rules for a large number of variations including state, LOB, and company. This eliminated

the manual effort that would have required hundreds of business analysts, developers, product owners & testers to view the applications interface and document the complex business rules. Our solution accurately sped our overall results, including a 60% reduction in User Acceptance Testing of the new platform, using comparative tools and reverse harvesting. Furthermore, it reduced rollout time for each product in other the business functions.

Business Rules Harvesting Solution

Automation Engine for scale				
Legacy Point of Sales (PoS) System	Vision AI based rules harvesting	Business Rules Catalog	AI Based Rules Analysis	Elastic Search based Visualization
Extractor		**Analyzer**		**Visualizer**

WHAT IS VISION AI?

Vision AI is artificial intelligence cognitive technology that combines the capabilities of computer vision, Optical Character Recognition (OCR) and AI to intelligently detect objects and text from any image or document.
Vision AI is highly scalable, with much greater efficiency and accuracy than the manual efforts.

Extractor
Vision AI extracts business rules from UI.

Analyzer
AI Analytics for intelligent rules correlation.

Core Modules

Visualizer
Dashboarding and intelligent search

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DRIVING SOLUTION

ARTIFICIAL INTELLIGENCE PAVES THE ROAD TO EXCELLENCE

Infosys solutions are driving modernization, accuracy, excellence, and efficiency through AI-driven business rule harvesting.

The injection of intelligence into the modernization program and the successful migration of over 45,000 users to a smarter way of working has pioneered the usage of AI frameworks within the insurance industry.

The successful rapid turnaround of this solution lays the foundation to replace manual effort and basic analytics in other areas in the future with foundational AI capabilities that can be replicated across your businesses and product lines.

Together we've set a new standard for quickly solving the jigsaw puzzle of reverse engineering, cataloging, and documenting business rules.

TOOLS AND TECHNIQUES

Powering Infosys Solution

XtractEdge	Market Basket Analysis (MBA)	JARO WINKLER	APRIORI	Elastic Search	Kibana
Capturing visual elements from the UI & compare policy documents	**Groundbreaking** statistical affinity calculations	String similarity **algorithm** to compare fields	Rule mining algorithm to **understand variations** and If-Then logic	To index **variations of rules**	**Aggregate and visualize** the business rules variations

To hear about how XtractEdge can further transform your business, click here.

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