



Intelligent Insurance Intake

Streamline claims
processing with intelligent
document extraction



Overview

This GenAI solution redefines insurance document processing by seamlessly handling complex forms that traditionally require extensive manual effort. Leveraging AWS's Agentic architecture, it transforms time-consuming form processing into an efficient, accurate workflow.

The solution comprehends document context, understands field relationships and structures data meaningfully. Combining Amazon Textract's document AI capabilities with Amazon Bedrock LLM's Generative Intelligence significantly improves data extraction quality while dramatically reducing processing time.

For insurance providers struggling with resource-intensive form processing, this solution delivers higher accuracy, faster processing and improved customer satisfaction. The serverless AWS architecture ensures scalability across different form types while maintaining enterprise-grade security and compliance.

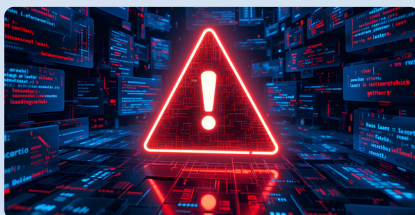
Challenges

Insurance companies struggle to process complex forms crucial to their business operations efficiently. These documents include applications to claims forms, containing critical business information in various formats like structured forms, detailed tables, checkboxes, or narrative questionnaires. These documents are the foundation for key insurance processes such as underwriting and claims processing.



High operational costs from manual processing

Insurance companies spend significant resources on manual data entry and validation, resulting in excessive labor costs and processing delays that directly impact customer satisfaction and business efficiency.



Error-prone data extraction

Traditional methods produce high error rates during form processing, leading to inaccurate underwriting decisions, claims processing issues and potential compliance violations.



Complex document layouts

Insurance forms contain mixed content types (tables, checkboxes, free text) and varying document quality, making automated extraction challenging with conventional OCR solutions.



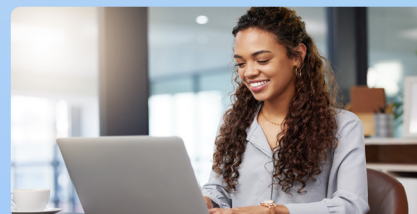
Form variations and revisions

Multiple versions of similar forms require flexible processing solutions, as rigid template-based approaches fail to adapt to document variations.



Integration challenges

Difficulty connecting form processing with core insurance systems creates data silos and workflow inefficiencies that slow business operations.



Scalability limitations

Traditional solutions struggle to handle volume fluctuations, creating processing backlogs during peak periods and reducing customer satisfaction.

Key features

This serverless document processing solution leverages Amazon Textract and Bedrock LLMs, Bedrock Agent Orchestration and Lambda functions to intelligently extract, interpret and structure complex form data with minimal human intervention.

Structural AI processing: Amazon Textract solution to extract tables, form fields and text blocks with efficient machine-learning accuracy

Cognitive understanding: Amazon Bedrock LLM interprets extracted information, recognizes relationships and transforms raw data into structured business information

Multi-Agent orchestration: Agentic AI pattern with Amazon Bedrock Agents enables insurance professionals to interact conversationally with complex information

Integration logic: AWS Lambda provides serverless functions that automatically scale, connecting components and executing business logic throughout the process

Security and Responsible AI: End-to-end encryption, compliance controls and guardrails protect enterprise data and operations



Benefits

Organizations can dramatically accelerate document processing while improving accuracy, reducing operational costs and enhancing employee and customer experiences.



Enhanced processing speed

Delivers up to 20x faster document handling, significantly reducing backlogs and improving response times



Superior accuracy

Achieves approximately 95% extraction precision across complex forms, minimizing errors and rework requirements



Operational cost reduction

Eliminates manual data entry and validation, freeing staff for higher-value customer service activities



Seamless scalability

Handles volume fluctuations effortlessly without additional infrastructure or staffing requirements during peak periods



Improved compliance

Ensures consistent data capture and standardized processing of regulatory information, reducing compliance risk exposure

Target customers:

The Intelligent Document Intake solution is ideally suited for



Insurance companies

Property and Casualty, Health and Life insurers process high volumes of applications, claims and policy documents containing complex structured and unstructured data that require both accuracy and regulatory compliance



Financial services organizations

Banks, mortgage lenders and wealth management firms handling loan applications, account opening documents and financial disclosures with mixed content types requiring secure, accurate processing



Healthcare providers

Hospitals, clinics and healthcare networks managing patient intake forms, medical records and insurance documentation that demand HIPAA-compliant processing with high accuracy for critical patient information

Use cases

Customer 1:

Leading Canadian property insurer dramatically reduced form processing time with improved data accuracy



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