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AmRisc's Journey: Automating the Insurance Submission Intake and Clearance Process Using Pega's AI/NLP and OCR Capabilities

Shelley Davis
CIO, AmRisc Group (A Truist Insurance Holdings Company)

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AmRisc GROUP
Market-Leading Performance Underwriting

Meet AmRisc

- AmRisc leads the market in underwriting catastrophe and specialty insurance for commercial property
- Established in 2000, AmRisc is a subsidiary of Truist Insurance Holdings, whose parent company, Truist Financial Corporation, is one of the largest financial services companies in the nation
- One of the first MGAs to develop a multi-model approach to risk underwriting
- AmRisc's success is greatly a result of the nearly 250 employees writing approximately $2.5B in premium annually
- 80k-100k submissions for quotes are received annually via email in one of three inboxes

Problem Statement

- A Triage Team spends an average of 5-10 minutes per email determining which of the 15+ team inboxes to route submissions for processing
- Underwriting Analysts (UAs) spend an additional average of 30 minutes per submission validating the producer, manually entering the data into RiscTrack (proprietary underwriting system), filing documents in ImageRight, and sending out the clearance email to producers
- Submissions contain numerous attachments (both structured and unstructured data) including ACORD files, SOVs (Excel files), PDFs, and Word docs
- Multiple sources of data are required to determine clearance status
  - Clearance decisions are made based on data in the subject line and body of the email, as well as email attachments, and by comparison of that data to historical data in the proprietary underwriting system

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Waypoint WHOLESALE

- General Property Division
  - Eastern Seaboard Team
  - Admitted Team
  - Non-Critical CAT Team
  - Critical CAT Team
  - Texas Habitational Team
- National Specialty Division
  - Technical Risks Team
  - National Accounts Team
  - Builders Risk Team

Chronos RETAIL

- General Property Division
  - Admitted Team
  - General Property E&S Team
  - Chronos E&S Condos Team
- National Specialty Division
  - Technical Risks Team
  - National Accounts Team

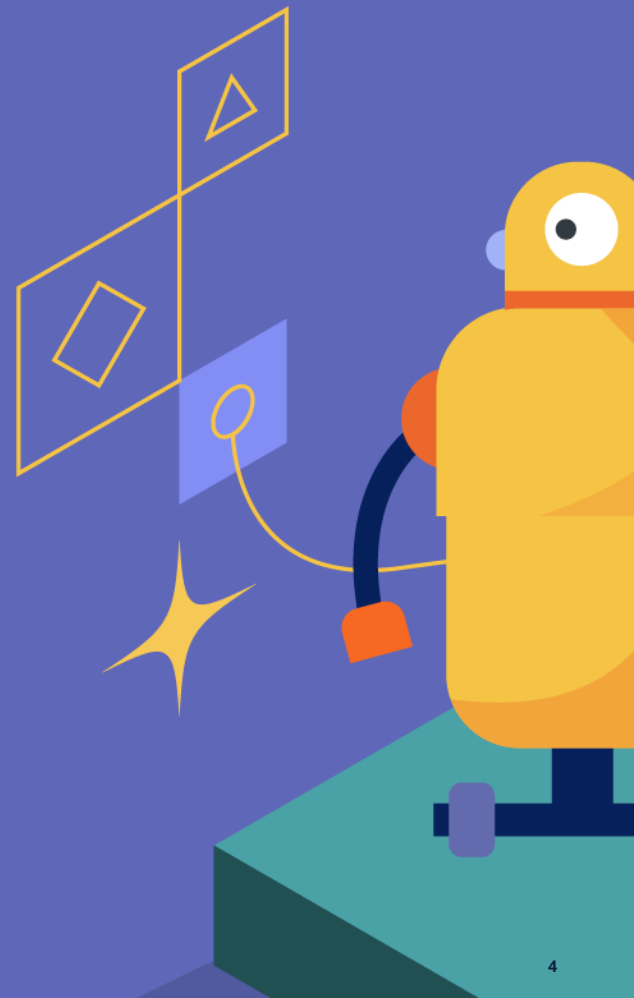
AmRisc ONLINE

- General Property Division
  - AmRisc Online Team

AmRisc SPECIALTY

- National Specialty Division
  - Specialty Team
  - DIC – CA EQ (Quake) Team

Business opportunity



Submission Automation System (SAS)

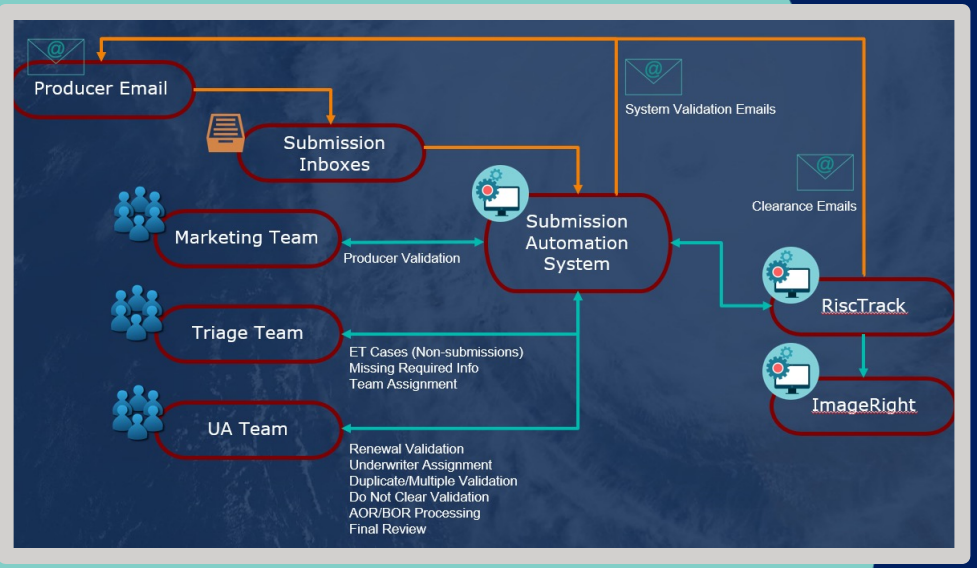
Implementing a Pega solution at AmRisc

Business Objectives

- Introduce automation to an extremely manual process to free up resources to focus on higher value add tasks
- Implement business rules to validate appointed producers, team assignment, new business vs. renewals, duplicate submissions, inquiries, and AOR/BORs
- Utilize API integration with RiscTrack to automatically set up the accounts, send the clearance email to the producer, and file all attachments in ImageRight

Business Goals

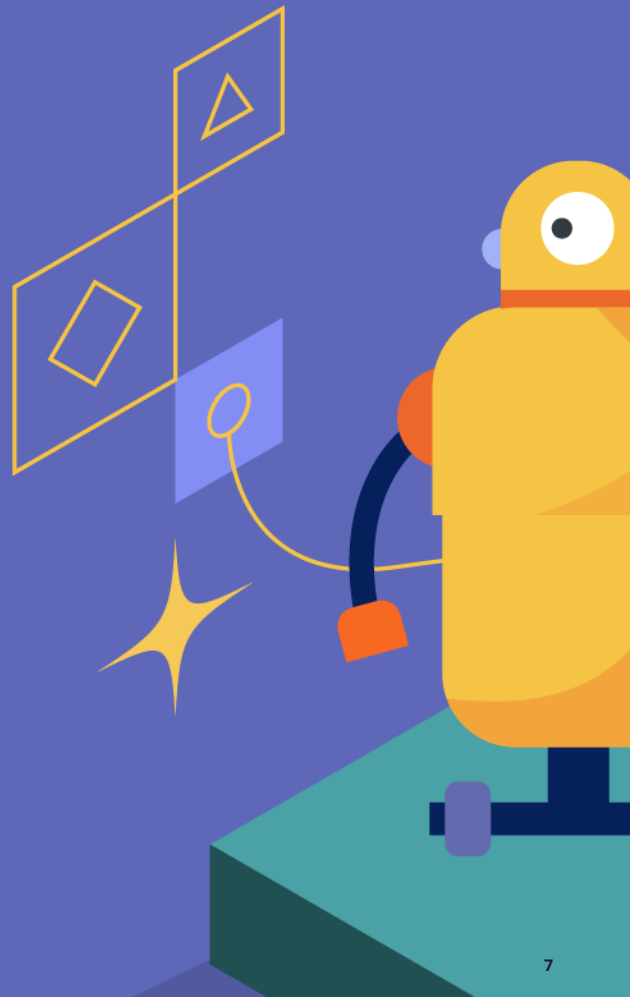
- Increase efficiency in the submission triage and clearance processes
- Provide enhanced submission tracking and reporting (i.e. duplicate submissions, subs from unappointed producers, workload analysis by resource, etc.)
- Automate the end-to-end submission process with little to no human intervention
- Identify additional revenue opportunities



The Solution

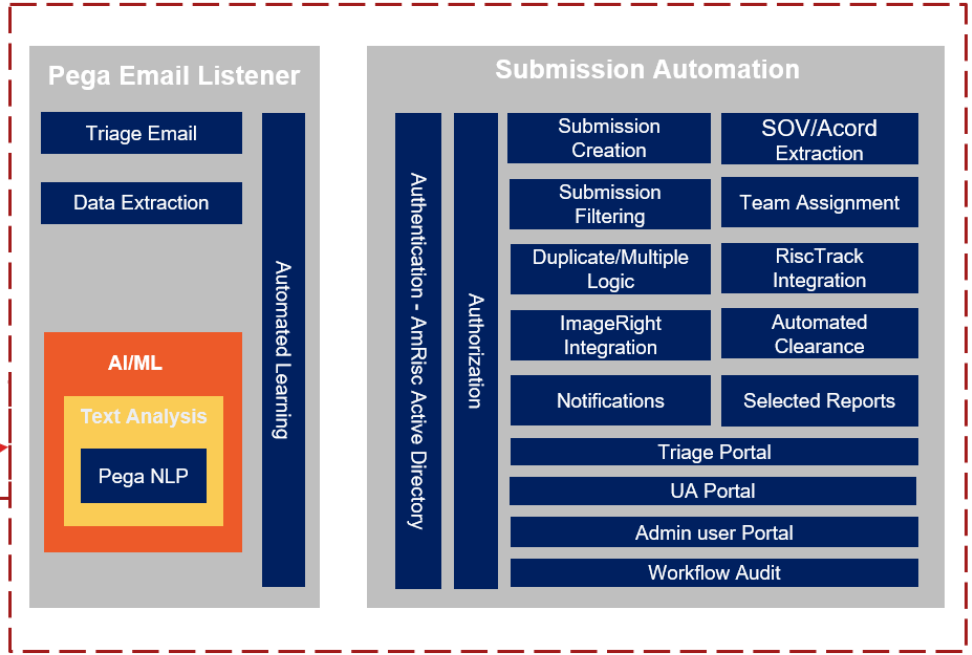
- SAS consumes all emails from submission inboxes (even non-submission emails)
- When all required data is present, SAS can fully determine clearance status and integrate with downstream systems in 1-2 minutes (or less!)
- SAS provides alternative workflows for human assistance when required information is not present for:
  - Non-submission emails
  - Producer validation
  - Renewal status determination
  - Underwriter assignment
  - Duplicate and Do Not Clear decisions
  - AOR/BORs
- Final review was introduced as a temporary stage gate to gain confidence in automation from the business

SAS – using AI for smart automation



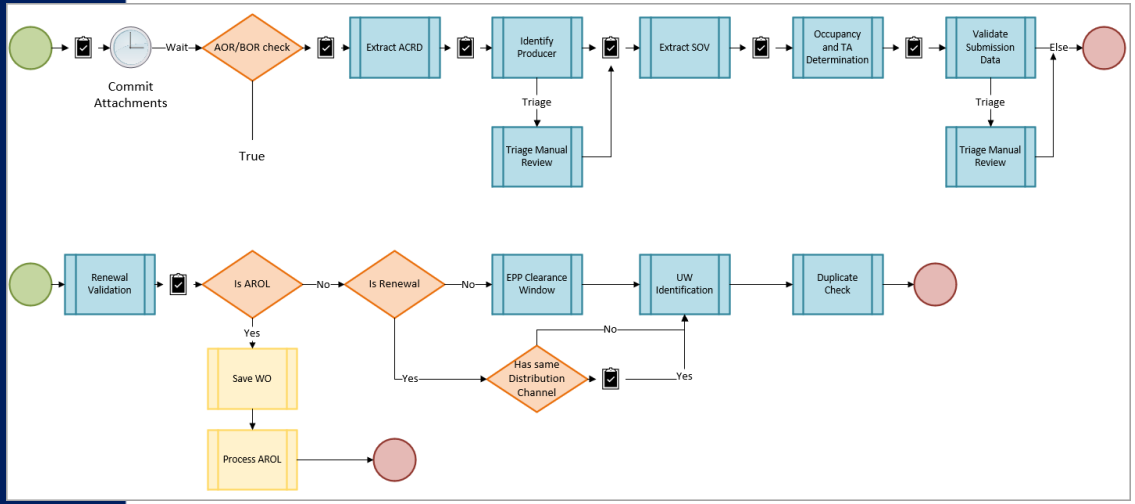
The solution

NLP – Natural Language Processing
AI – Artificial Intelligence
ML – Machine Learning
SOV – Schedule of Values (info about properties to be insured
ACORD – Association for Cooperative Operations Research and Development, an industry standard file used in MGA, specialized insurance



The Core of Smart Extraction

- Extracting data elements from the email body
  - Is this a submission?
  - Smart extraction: combination of keywords, RUTA, and machine learning
    - RUTA – e.g., policy number, email, etc.
    - Keywords – e.g., renewal, liability, etc.
    - ML – e.g., insured name, dates, etc.
- Creating the models
  - Using historical data
  - Mapping the identified elements to properties
  - Setting the thresholds
  - Tuning the system
- Processing attachments
  - Excel and data extraction of Statement of Values (SOVs)
  - Identifying types of Excel and conversions
  - ACORD (Assoc. for Coop. Ops R&D) files with OCR



Results Within the First Month

Metrics

- ~100 Users
- 8,000+ emails processed
- 50,000+ documents processed and integrated
- 5,000+ submissions identified as cleared
- ~800 submissions identified as “Not Clear”
- 12 non-appointed producers identified

Value

- Submissions being processed in minutes
- Additional revenue generation potential identified
- Improved customer experience
- Improved data consistency to SORs

Success

- Producer ID success >95%
- SOV read success rate ~70%
- Data extraction from PDFs using OCR 100% success rate
- Attachment to uploads in RiscTrack 100% success

Solution to Gaining Confidence in Technology

Implementing final review before downstream integration

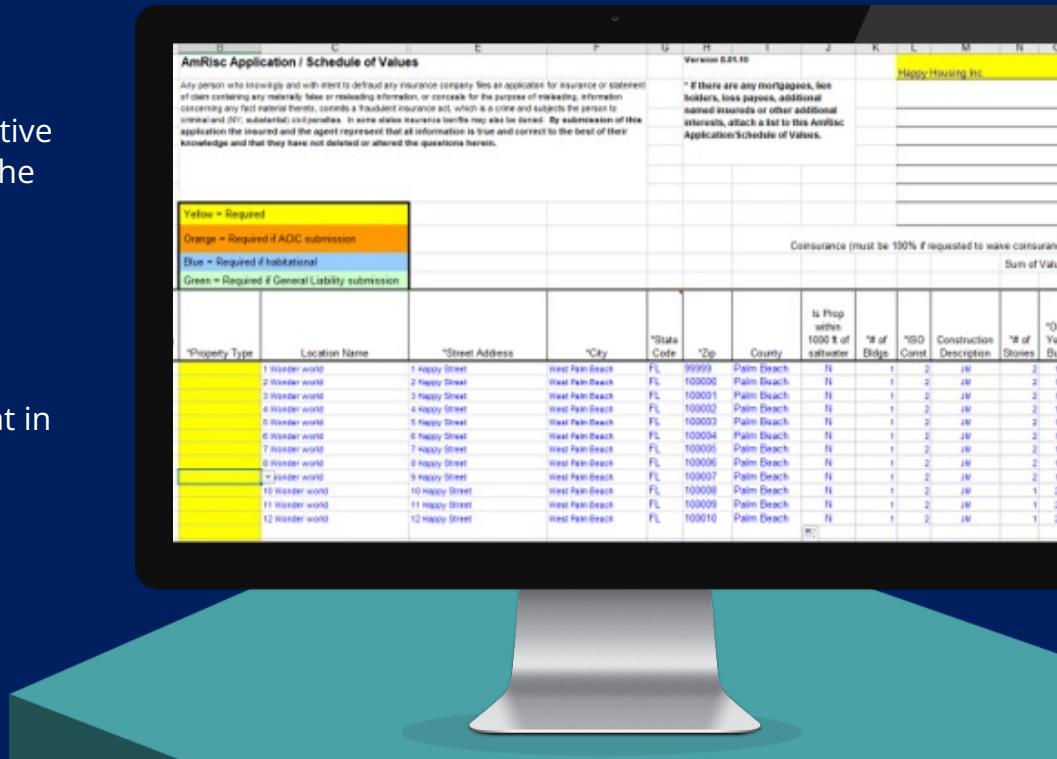
- Capturing metrics regarding which data points the User was changing before integration provided an opportunity to view the quality of the data being provided by producers
- Approximately 52% of submissions were being edited before integrating to downstream system
- Additional business rules were identified
- Business process workflow discrepancies between teams surfaced leading to user training opportunities

Key challenges

Data Extraction

The primary challenge of SAS

- Email bodies are highly inconsistent in terms of patterns
  - Data points like named insured, producer, effective dates listed with variations in multiple parts of the email
- Many similar entities extracted, making mapping difficult
- Very little consistency in SOV formats
  - More than 70 variations of the “standard” format in a test of 270 sample emails
- Future releases will continue to explore additional enhancements to data extraction



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