Intelligent Process Automation

Driving accelerated decision making in healthcare

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Making AI a priority

In the United States, around 15% of the total $3.5 trillion healthcare spending was attributed to insurance billing and administrative costs.[1] Significantly, payers and providers have halted plans to expand capacities in global delivery centers and are now leveraging automation and analytics to an ever-increasing degree. Within this context, the digitization of operational tasks has become a top priority.

As member touchpoints continue to change at a rapid pace, automation is now the avenue to ensure high levels of efficient operations. Faster turnarounds, fewer human errors and cost optimization are all critical features of the efficiency that companies need to deliver great customer service, and those that follow this trend will have a significant advantage in maximizing revenue.

To demonstrate this fact, the win rates of service providers that do not incorporate AI technologies into their core business processes will decrease by 30% compared with 2018 according to Gartner.[2]

Thinking beyond automation

Most organizations have realized the importance of automation in this space and have already deployed solutions to become more efficient and increase savings, which include robotic process automation, cloud integrations and chatbots. These solutions are prevalent across administrative processes such as network and provider management, plan management, prior authorization and program integrity. Roughly 80% of healthcare enterprises have some level of automation in place.[3]

However, very few companies are able to take a holistic view of these processes, and even fewer can deploy solutions to deliver end-to-end automation. The desire to achieve better outcomes is strong amongst the health plans but there are multiple factors that complicate this matter.

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[1] https://www.jdsupra.com/legalnews/in-u-s-health-care-experts-assail-1-19356/

[2] https://www.gartner.com/en/documents/3906267-how-to-leverage-intelligent-automation-for-differentiati

[3] https://www.caqh.org/sites/default/files/explorations/index/2020-caqh-index.pdf

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The challenges

Traditional healthcare and life sciences (HLS) processes are fragmented and highly manual, which is particularly prominent in claim and payment operations. This has also translated into the technology setup of most organizations, as siloed and disjointed business processes exist across the entire life cycle.

Event logs and incident management data are critical for these operational processes, however, consolidation and availability of clean data is a big hurdle that persists in the market.

These problems have made the expectation for faster turnaround times difficult to meet, and can have a detrimental impact on customer satisfaction and loyalty.

Opportunities for innovation

This challenge is an evolving one, and every detail that is uncovered only adds to the complexity of the task. Essentially, multiple iterations and versions would be needed to solve it completely, and though the risk component cannot be eliminated entirely, it could be minimized by a solution with the following aspects:
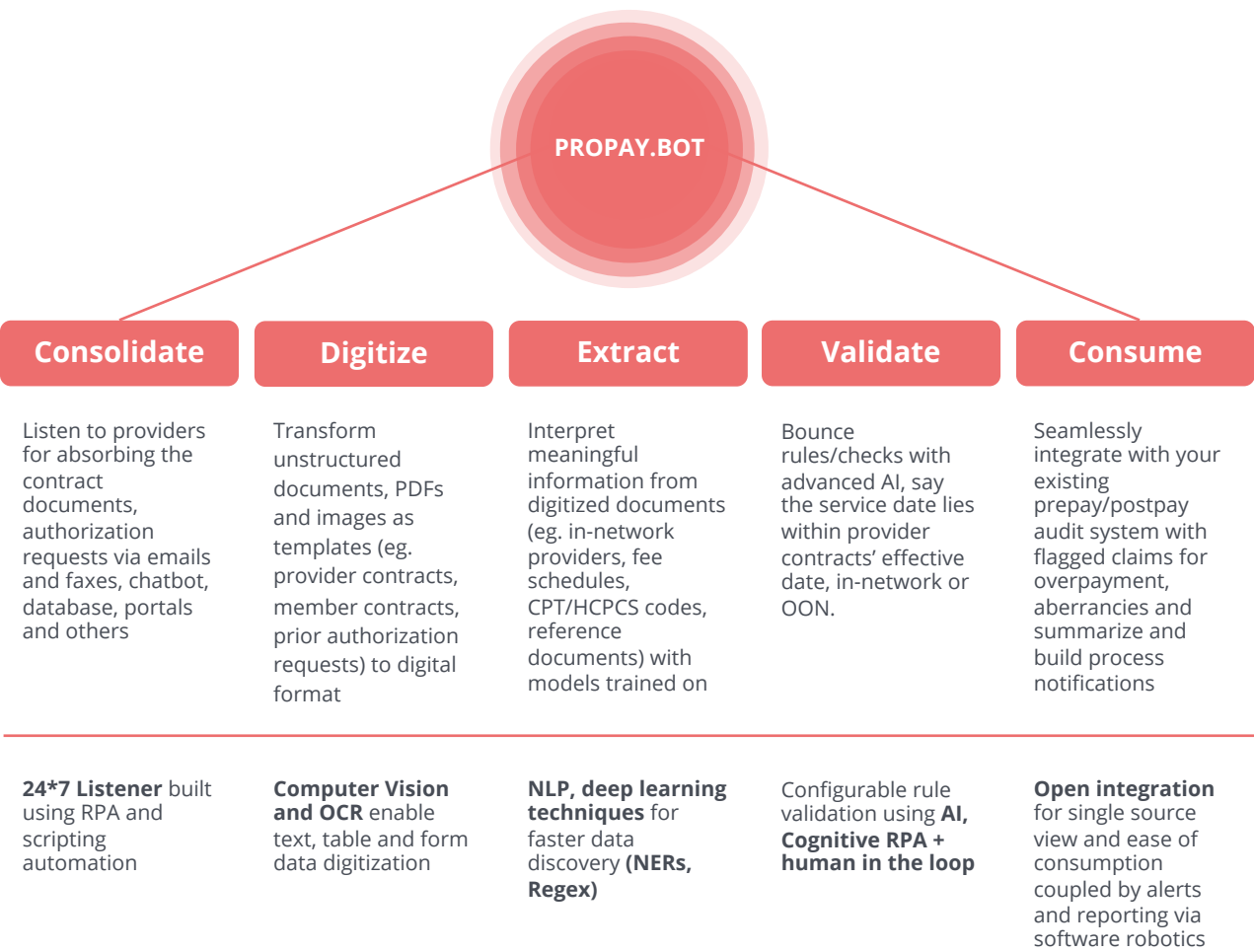
• Composable architecture

• A democratized citizen developer approach for business users to start adopting new technologies

• Machine learning to analyze alerts and incidents, maintaining cost competitiveness

The healthcare ecosystem – including payers, provider groups and care management organizations – requires a comprehensive, user-friendly approach to solve these administrative problems.

"The challenges keep evolving, and every new detail adds to their complexity."

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How Fractal can help

Fractal's IPA solution, ProPay.Bot, is a cognitive automation framework and accelerator. It has deep learning models that are capable of abstracting, understanding and interpreting untapped information from administrative documents, including provider contracts, member contracts and prior authorization requests. Additionally, ProPay.Bot is able to validate the content against the business rules across the processes in the value chain.

PROPAY.BOT

Consolidate	Digitize	Extract	Validate	Consume
Listen to providers for absorbing the contract documents, authorization requests via emails and faxes, chatbot, database, portals and others	Transform unstructured documents, PDFs and images as templates (eg. provider contracts, member contracts, prior authorization requests) to digital format	Interpret meaningful information from digitized documents (eg. in-network providers, fee schedules, CPT/HCPCS codes, reference documents) with models trained on	Bounce rules/checks with advanced AI, say the service date lies within provider contracts' effective date, in-network or OON.	Seamlessly integrate with your existing prepay/postpay audit system with flagged claims for overpayment, aberrancies and summarize and build process notifications
24*7 Listener built using RPA and scripting automation	**Computer Vision and OCR** enable text, table and form data digitization	**NLP, deep learning techniques** for faster data discovery **(NERs, Regex)**	Configurable rule validation using **AI, Cognitive RPA + human in the loop**	**Open integration** for single source view and ease of consumption coupled by alerts and reporting via software robotics

The cloud-agnostic accelerator is built with a strong orchestration comprising OpenRPA, Openbots and Python-RPA frameworks for achieving enterprise-level orchestration of robots and processes. ProPay.Bot provides capabilities such as UI automation (RPA), low-code approach and faster deployments, bringing in advanced computer vision and NLP techniques for high accuracy data digitization.

The business-driven AI-powered validation engine, combined with a human-in-the-loop approach, ensures relevance to users of the process. Finally, the last step involves the integration of each of these cognitive components to other systems in order to drive end-to-end automation.

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Creating value for the healthcare ecosystem

At every step of the process, there are opportunities to not just automate, but accelerate decision intelligence at scale. The quantum of gains incurred across these steps can also be very unique. For example, transforming to digital interactions with chatbots and conversational AI for provider interactions can immediately improve the speed of communication, and also elevate provider experience, drive better network design and reduce provider abrasions.

Similarly, the inclusion of process automation to execute claims for contract validation in audit workflows can help identify aberrancies at a faster rate – saving administrative efforts to manage appeals – and address revenue leakage at an earlier stage. While the initial results are most pronounced with immediate revenue and efficiency gains, there is potentially a long-lasting positive effect with improved payer-provider collaboration, member and provider experience, cost management and workforce experience.

Some of the key focus parameters include:

Speed to value

AI/data driven decision intelligence

Scalable design

24*7 continuous listener

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With intelligent process automation solutions, significant positive benefits can be produced across the value chain:

1 Better identification of potential opportunities for revenue optimization, such as contract reviews during payment audits and claim processing

2 Improved efficiency and quality of processing administrative requests, including prior authorization requests, appeals, denials and claim processing requests

3 Enhanced member and provider experience with quick and effective decisions that are enabled by AI-driven cognitive decision support

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Enable better decisions with Fractal

Fractal is one of the most prominent players in the artificial intelligence space. Fractal's mission is to power every human decision in the enterprise and bring AI, engineering, and design to help the world's most admired Fortune 500® companies.

Fractal product companies include Qure.ai, Crux Intelligence, Theremin.ai, Eugenie.ai & Samya.ai.

Fractal has more than 2,300 employees across 16 global locations, including United States, UK, Ukraine, India, and Australia. Fractal has consistently been rated as India's best company to work for, by The Great Place to Work® Institute, a 'Leader' by Forrester Research in its Wave™ on Specialized Insights Services, Computer Vision & Customer Analytics and as an "Honorable Vendor" in 2021 Magic Quadrant™ for data & analytics by Gartner.

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