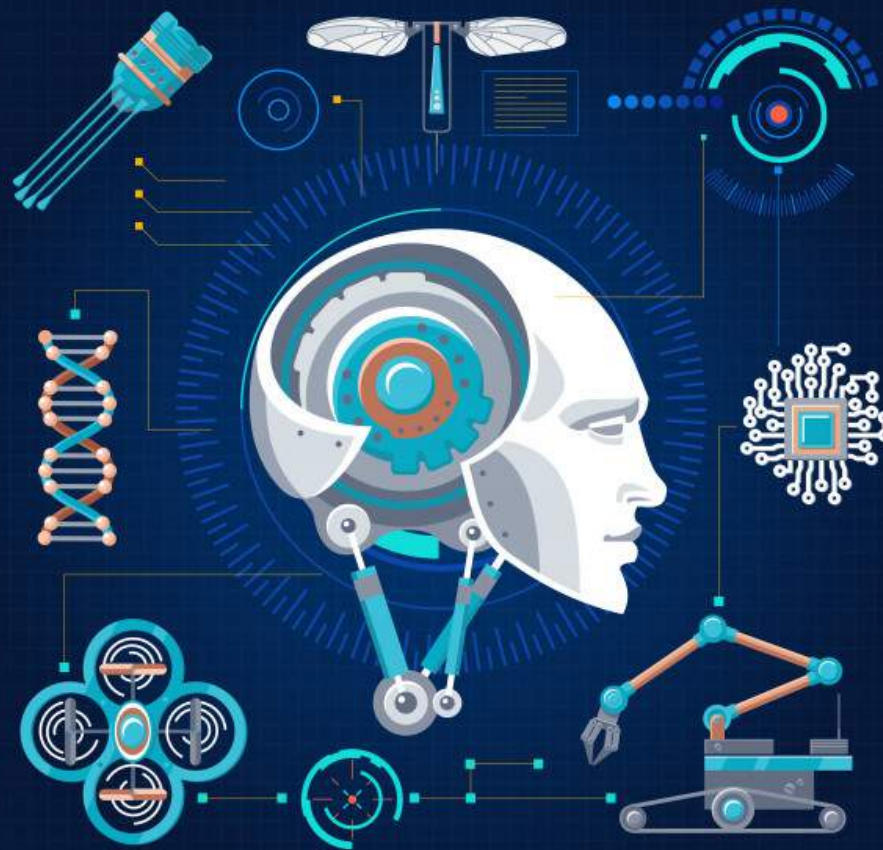


How

# Robotic Process Automation

Can Reduce Your

# Medical Billing Cost



HEALTHCARE  
DELIVERED IT

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## What is Robotic Process Automation (RPA)?

Robotic Process Automation or RPA, as it is popularly called, is the use of software scripts ("Robots" or "Bots" in short) to automate repetitive, day-to-day tasks, which were otherwise being performed by knowledge workers.

Automating such tasks saves time and money, and positively impacts your efficiency and effectiveness by completing tasks faster, more accurately, and round the clock, allowing knowledge workers to do real value-adding work.

### Key Reasons for using RPA

#### Accelerate Deployment

You can build, test and deploy new automation bots and workflows in hours, instead of a conventional development which can take days or weeks.

#### Reduce Human Errors

RPA reduces errors made by humans in copying & pasting, or duplicate data entry of the same data into multiple systems.

#### Increase Efficiency

Tasks that used to take hours or days can be completed in a few minutes using RPA. You can do more - better, cheaper, faster!

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***"The RPA market is projected to reach US\$ 25.56 billion by 2027"***

***Grand View Research, Jul-2020***

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### Where does RPA fit in your workflow?

Automation holds great promise for medical practices that rely on fast, streamlined repetitive processes to gain efficiency and deliver better experiences to patients.

From independent software solutions, to completely automated platforms designed to deliver fully technology-driven services, each has its strengths, weaknesses, opportunities & threats.

Basic RPA can take care of day-to-day individual tasks, that are relatively simple and conventionally handled by humans. Think of each Bot as a human substitute that can do one and only one thing – better, cheaper, faster! Now imagine, having an army of such Bots who work in sync, where the output of one Bot's work becomes the input of the second Bot's work and so on!

RPA is of great interest where resources and budgets are limited, like in case of a medical practice. But to succeed with RPA, it is important to understand the technology's benefits and limitations, how to expand its evolving capabilities and the value it brings.

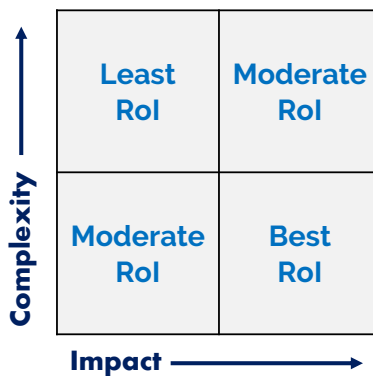


## What you can and cannot do with RPA

With basic RPA, a Bot literally performs the task that a human would do. This can include routine tasks like data entry or retrieval, clicking buttons, file up/downloading, or payment processing.

Complete automation uses systems, processes and even third-party services that are specifically built for automation from the get-go. Therefore, the potential benefits of complete automation are much higher, but it requires a huge commitment to begin with.

An Impact-Complexity matrix shows which processes provide the best RoI.



However, you could have the best of both worlds. RPA Bots can be implemented in a workflow driven approach where specific Bots are executed one after the other, to accomplish a specific objective. There are software frameworks that allow you to build "Drivers" to run your Bots.

While these Bots are taking decisions based on real-time inputs, sometimes the best option derived by their algorithm

may be to route a particular problem or situation to a human for next action. This is completely OK as long as you can go back and create or edit a bot to handle this new situation going forward.

### Advantages of Basic RPA

- Business users can drive RPA instead of IT users, which is a major shift
- RPA frees up valuable staff time, that knowledge workers can use for real value-adding tasks improving staff morale and job satisfaction
- Since RPA is automating manual tasks that already exist, it is easier to implement and carries low risk
- The overall workflow doesn't change even if you automate a task

### Limitations of Basic RPA

Basic RPA cannot improve or fix processes; it can only automate existing processes. Tasks that are complicated or require decision making with multiple options, are not well suited for Basic RPA.

### Ethical Aspects of RPA

It is only natural to view RPA as a replacement for humans, taking away their jobs. But RPA is replacing tasks, not humans. By automating highly repetitive tasks, it is allowing humans to focus on more value-adding tasks.

## How to Get Started with RPA

It is very easy to get started with RPA. The software watches the human perform the task as usual and creates a script to replicate it. The resulting script is fine-tuned to ensure all edge cases are accounted for. The outcome is now a Bot, ready to be tested and deployed for real-life work.

It is a good idea to first ascertain whether a task is suitable and ready for automation or not. We must calculate the Return on Investment (RoI) on automating a task. If the task has limited use, it may not be worth investing the dollars to automate it.

### Identifying "RPA-ready" tasks

- Task is simple, consistent and repeatable
- Task is prone to data entry errors by humans due to repetitive nature
- Task is already being done by humans and is well-defined and documented
- Task frees up a significant amount of human time, at least a few hours every week

### Ready to do RPA in-house?

Despite of having praised RPA, we must warn you that it takes a lot of effort to get RPA done right. You will need a champion of the cause that will interact with all stakeholders, ensure that edge cases are documented, and the effort sees the light of the day in production and doesn't get stuck after a pilot.

Usually, it is hard to find someone from the existing staff who can be dedicated to

the cause, even for the time-being. You may have to hire or contract with someone who understands the business to handle this if you are planning to do RPA implementation all by yourself. The other option is to look for an experienced vendor to do it for you.

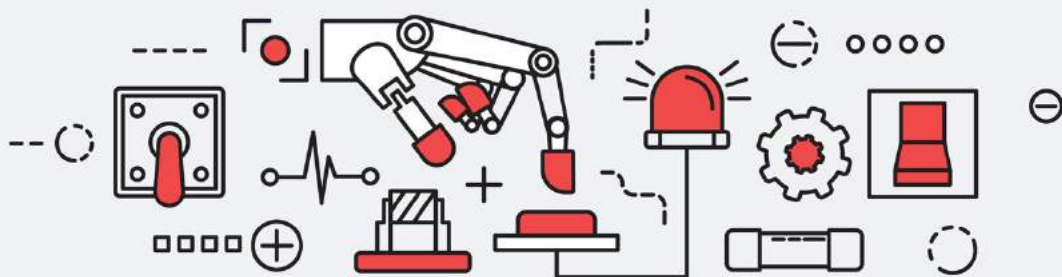
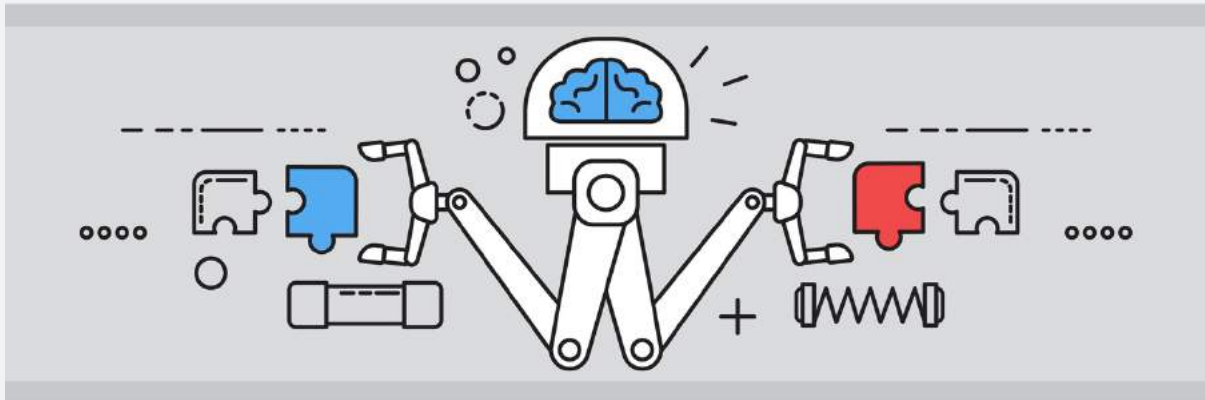
### Key Questions for your RPA vendor

1. Do you understand how the business works or are you a pure-play IT vendor?
2. Do you have a vision for the larger automation strategy or are you focused on just creating small Bots?
3. Can you help us identify the opportunities to automate and calculate their RoI?
4. Are your offerings able to meet security and compliance requirements?
5. Do you have a framework to create workflows and drivers for Bots?
6. Do you have a track-record of successful implementation in real-life scenarios?

*"It is OK to start small, but you need to make sure that you have the buy-in of your operations team, as they are the end-users for RPA. Plan a pipeline of Bots and reduce your Medical Billing costs, one Bot at a time."*



# Robotic Process Automation Use-Cases in Medical Billing





## Patient Scheduling

In more cases than not, Appointment Scheduling is the starting point of the patient's journey with the healthcare provider. These days, online appointment scheduling via a website or an app is commonplace. However, handling cancellations, re-scheduling and no-shows is still a manual process in most cases. In some specialties, the scheduling not only depends on the availability of the doctor, but specialized equipment, treatment rooms etc. that are often shared by multiple doctors. This is a good candidate for automation.

Automation can be effectively put to use for collection of data from the patient. Based on the patient's demographics, chief complaint, symptoms and medical history, Bots can find out the most suitable appointment slots where the provider of choice and necessary equipment, rooms etc. are all available at the same time.

Once the appointment is booked, the Bot can block out the same in the scheduler. If there is a need to re-schedule or cancel the appointment, the Bot can trigger a message to another patient who wanted this slot but couldn't get it due to unavailability and make the adjustments without human intervention. Bots handle this even during non-office hours.

Bots can send reminders before the appointment, help patients with directions to the facility and even guide them on pre-visit requirements.

*"Not only does this save a lot of time for the provider, but tremendously increases the patient satisfaction, which is the real win."*

## Patient Access

Lack of Eligibility Verification and Verification of Benefits before the service are major causes of denials for a lot of medical specialties. Although, most big insurance companies have their payer portals to check for eligibility and benefits, the process often requires staff to pull out various pieces of information from the EHR/PMS and then manually feed it into the payer portal, verify the results, put them back in the EHR/PMS and communicate to the patient about their eligibility and anticipated out-of-pocket expenses. This is cumbersome and often the practice staff is too busy to do this in letter and spirit.

This is another classic candidate for automation. Bots can be programmed to extract appointment and patient demographics from the EHR/PMS, use that information to log in to appropriate payer portals to verify eligibility and benefits and calculate the patient's out-of-pocket expenses based on allowed amounts by that payer. Another set of Bots can be created to insert this information into the EHR/PMS such that it is visible to the office staff when the patient arrives or even send this information to the patient via secure communication means.

Studies have shown that checking eligibility and verification of benefits prior to service provisioning can greatly improve the cashflow for the practice and save time and effort on sending patient statements and following up with the patient for payments.



## Claims Management

It is estimated that around 300 mn Americans have health insurance coverage. Healthcare providers that serve these people have the responsibility of creating and sending claims to their insurers so that they get paid. It requires significant amount of manual data entry, which is extremely time-consuming, error-prone and often redundant. Every year, a large number of claims are denied due to incorrect demographic and policy information on these claims.

RPA is the holy grail for this problem. Bots can refer to various sources of information, resolve conflicting information by establishing the "source of truth" and based on the most correct information, compile the data to submit clean claims to the insurance payer. Bots can simultaneously check for information in existing records, paper documents, payer portals, past claims and denials and even third-party software.

*"Due to error-free claims submission, the chances of first-pass payment and speedy resolution are much higher."*



## Claims Status Retrieval

Claims sitting in AR (Accounts Receivable) can cause not only temporary delays in cash-flow, but even permanent loss of revenue, if not dealt with in a timely manner. Often, practices find that the people responsible for handling their billing give the lowest priority to Insurance AR Follow-up. Let's face it, it's a tedious job. You are on the phone for hours, haggling with insurance representatives to get correct and complete information on why your claim has not been paid, that is if, you can get past the hold queue. If the insurance payer provides a payer portal to check claim status, you have to manually copy data from the EHR/PMS and enter it into the payer portal manually, and then copy the results back to your EHR/PMS for next action.

RPA Bots are extremely useful for such situations. These Bots can retrieve claim details from the EHR/PMS based on a variety of rules that you can set up based on payer adjudication turn-around times etc. Bots can then use the payer websites or aggregator websites to get claim status for each claim and can categorize them into different buckets for next actions.

For example, if a claim is Paid, the Bot can retrieve the Payment details and push the claim to "Post Payment" queue along with complete details.

Several avenues exist to customize the timing and next action criteria for each kind of scenario. RPA can help you get claims status and fix denied claims at lightning speeds.



## Payment Handling

RPA bots can be programmed to handle payments coming in from insurance or patients. Bots can match payments with the corresponding claims, identify adjustments and post payments correctly for each line item in the claim.

Bots can be designed to handle credit balances and generate refund statements. Similarly, Bots can take care of generating patient statements and reconciling claims after patient payments.

With the advancements in Optical Character Recognition (OCR) and Natural Language Processing (NLP), Bots can process not just the electronic ANSI 835 Electronic Remittance Advice files, but also the paper EoBs scanned using basic scanners. This greatly reduces the time required to search for patients and posting straight-forward payments where everything adds up. This leaves the billing person with only the complicated cases to deal with where there may be payment discrepancies, reductions, adjustments or recoupments.

Bots can go one step further and even reconcile your payments with your bank statement to make sure that everything balances correctly and completely.



## Denial Management

With a little more effort, Bots can even handle your denials. If you can build enough business logic around the denial codes returned by each insurance payer in the 835 files, or the paper EoBs, Bots can take corrective action to fix and resubmit the claim.

For example, if the denial is for the lack of medical necessity, the Bot can retrieve medical records associated with that date of service from the EHR, attach it to the claim, mark it as a corrected claim and refile the claim.

Some payers want the corrected claims to be submitted through their portals. Even that can be handled very easily by the Bots. They can login, access the correct page, fill in the claim data, attach relevant documents and resubmit the claim online.

Basically, Bots are built to mimic human actions. The more repetitive and well-defined the human action is, the more efficient the Bot will be.

*"What you can do with RPA Bots, is only limited by your imagination. If you can define and document it, an RPA Bot can automate it."*



## About 314e Corporation

314e is a Best in KLAS Healthcare IT Products and Solutions company. It has been offering class-leading solutions to providers, payers and life sciences companies since 2004. 314e offers modern, tech-enabled medical billing solutions company using RPA, Big Data, AI & Analytics to build high quality, low cost revenue cycle offerings.

With over 15 years of experience in Revenue Cycle Management, working with more than 25 medical specialties and over 20 software platforms, 314e is the preferred partner for healthcare service providers from Florida to California.

314e offers the complete suite of services including Coding, Billing, Old AR Recovery, Training and Advisory services. To know more about 314e, visit our website [www.314e.com](http://www.314e.com).

## About the Author

Gaurav Mundra is the Sr. Vice-President of Revenue Cycle Services at 314e. Having spent most part of his 16 year long career in the US Healthcare IT industry, he is very passionate about all things related to Revenue Cycle Management and Automation.

Gaurav is a Certified Healthcare Finance Professional (CHFP) and a Certified Revenue Cycle Representative (CRCR) from Healthcare Financial Management Association (HFMA). His educational qualifications include a degree in Business Management and Computer Engineering.

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