Webinar 2: Accidental RPA - When not to dive in

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So, Alright! Time to get started …

So, I believe most members are settled now.

So, Once again Hello to all!
I am Niladri, your moderator for this webinar and I head the RPA and digital transformation group at V2Solutions.

I would like to thank you all for taking the time to join this webinar today.

The webinar, “Accidental RPA, when not to dive in”, is a second one in our series of webinars focusing on RPA. We had the first series titled “Honest – Real World RPA” few months back that covered 5 true use cases of RPA the way we have implemented those. Drop us a note in case you would like to hear the recorded version of that webinar.

Ok. So, a quick glance at the Housekeeping section :

Housekeeping

So, you have a Q&A section available on screen that you can use to raise your questions . We will pick a few of those randomly towards the end of the presentation, however we will try our best to respond to all questions over the mail eventually.

Polls will be triggered at the end of webinar. It won’t take you a more than 20 seconds to respond to it. Do respond to the poll to help us improve.

For the Webinar Recording you will be receiving an email with the link to the recording in next 24 hrs.

Alright! So, without any further delay, Let me jump in to make the introduction to the speaker of this webinar, Aditya Mooley.

Speaker

Aditya is a Sr. Technical Architect at V2Solutions spearheading multiple projects in the areas of Intelligence automation, specifically RPA on multiple platforms. He has over 15 years of experience in broad range of technologies from Open source stack to enterprise mobile applications.

So, Welcome Aditya …… and over to you.

Greetings

Aright! Well, thank you so much, Niladri. Hello everyone … Once again, I welcome you all to this webinar "Accidental RPA … when not to dive in".

We all are witnessing a huge growth in RPA market … and although RPA can be tracked back to early 2000's, it has picked up the pace in last couple of years. In the last year alone, we have seen around 63% growth in RPA market.

1. As per Gartner, the inquires for RPA has gone up by 59% over last year showing the next wave of automation-digital transformation is here.
2. Deloitte's recent survey also predicts that RPA adoption will increase from 53 per cent to **72 per cent** within next two years.
3. And RPA as a technology has responded well to this growth … by introducing features like "Human in the loop" … thus increasing the scope of automation through Robot Human interaction and providing integrations with technologies like Artificial Intelligence, Machine Learning etc. to support next level of automation also known as Hyper Automation.

But at the same time, it would be interesting for you to know that, of all the processes that are brought for Robotic Automation, only 30-50% of them can actually be automated using RPA. Others … well, we will see what happens to those shortly. So one needs to be very cautious while selecting the processes for RPA in order to avoid the disappointment and getting RPA itself branded as failure.

Of course, RPA is a great tool in every organization's automation journey, but it must not be mistaken as a one stop solution for achieving the dream of digital transformation.

And this is precisely the reason why we are doing this webinar.

Agenda

So, what you can expect from this webinar today.

- You can expect to gain insights into why RPA fails to deliver
- And what are the Possible solutions to avoid the pitfalls

And we plan to do it by giving you a detailed walkthrough of live use-cases and analysing what could have been done differently in those.

And we are doing this webinar so that we can make informed decisions in your automation journey and achieve better ROI.

And the good news is, almost 90% of the audience here is still in the initial phase of RPA and this webinar will help lay a solid foundation for the rest of their RPA journey.

About Us

So, before we start, I would quickly run through our RPA practice here at V2Solution. So, V2Solutions is into delivering Intelligent Automations to clients across the globe. We have expertise in SAP automation with over 100 processes automated involving SAP till now. We are also the

"Implementation Partners" for leading RPA platforms available in the market. With a large pool of certified developers for these platforms, we have over 200 Robotic workflows in production, saving 25,000+ man hours so far and more than 160,000 successful transactions. And, of course, we have had our share of success and failures throughout this journey which is why we are here to talk about this topic and share our learnings with you.

With that … let's start with our first use case.

Use Case 1

Vendor Scorecard Generation

Vendor scorecard is a report which is used to track and measure vendor performance.

Here, a robot is deployed to get a list of vendors from SAP.
The robot then opens and logs in to PowerBI web application where the dashboard is created, selects the parameters and generates the report and saves it as a PDF file.
This generated PDF is then sent as an email to individual vendors.
The thing to note here is this is a weekly process and with around 200 to 250 vendors to be processed in each run.

So … **being the experts in SAP automation** … our team developed this process in just about 5 days. For first couple of weeks everything worked perfectly fine as expected. But then suddenly the process failed and none of the reports went out.

Upon investigation, we found that the identity of filters in Power BI started changing every now and then after the report created by the team is modified. And as we all know … the dashboards being the dashboards are going to change and get tweaked time to time in order to make the reporting better for the senior management.

So now, if we take a step back and look at the feasibility of this process, we will notice that … **the Process** is quite simple. The **Applications involved** in the process are standard applications like Outlook, Excel and a web application and it's a very **stable process** as in the process steps are constant. They are not changing anytime soon. And thus, it's a perfect candidate for Automation.

But, the PowerBi application involved has a very dynamic User Interface due to which constant changes will be required to the automation which is an expensive proposition in longer run. And then finally, we ended up scrapping this automation because making these changes every now and then was becoming costly.

So, learning from this process is … you should not automate the processes where dynamism is involved at any level as lot of time and money will be spent on its upkeep and will directly impact the ROI.

Use Case 2

Salesforce to SharePoint migration

Alright … now we move to our next use case which is "Salesforce to SharePoint migration".

In this process, on closure of Opportunity in Salesforce, the corresponding data related to the Opportunity, its Contacts and any attachments like SoW, Contracts and the other documents had to be copied over to SharePoint site for internal use in the organization. Now let us quickly look at what options do we have here for automating this process.

The first option obviously the RPA where

1. Robot logins to Salesforce in browser
2. gets the list of closed Opportunities from last visit and extracts all the data for it.
3. Similarly, it opens SharePoint in browser, and
4. one by one creates the entries for it by filling the forms in SharePoint

To look at the positives

1. the User Interface is pretty standard. So, almost no chances of error like in previous use case
2. Automating it is very fast … **thanks to our large collection of reusable components created for applications like Salesforce, SharePoint etc.**

But on the flip side

1. Since the records will be copied one by one through web interface, the process execution will be very slow

Let's see if we have any other option available for automating the same process. And yes, we do have it. The **APIs or Application Programming Interface**.

So, both Salesforce and SharePoint provides a solid API and has readymade libraries available in all the leading programming languages like Java, Dot Net, etc. APIs allows for Deeper Integration between two apps without having to deal with the frontend and provides a more resilient implementation. They also provide more control over the data and has better controls over the exceptions that may occur at the time of execution. And finally, the execution is going to be very fast because everything happens in the background. There is no user interface involved as such. Obviously, on the flip side some more time will be required for the implementation but that will get covered in the execution. Even though RPA is feasible in this case, we considered it better to go with Deeper Integration with APIs as it is a more stable option.

So, to conclude, we saw that RPA was a solution here.
But RPA may not be the only solution every time. You need to look into other ways of automation as well to get the best possible result out of the automation.

Ok. So, now that we have seen couple of uses cases, let's analyse some more common reasons of why RPA fails.
So, broadly we have classified them in 4 categories: Process, People, Technology and Strategy. Now as you can see … there are multiple challenges in each of these categories and most of them are self-explanatory. So, we will not go into each one of them. But let's see some of the challenges that we face here.

Let us take an example of “Unoptimized processes”. So, one thing everyone needs to understand is RPA doesn’t optimise your existing processes. What it does is, it simply automates the manual task a human was performing. Thus, if the process is not optimised before automating it, robots will simply perform the same actions or the same redundant steps that the human was performing which will stop you from getting the full benefits of automation. So, before any process is sent for optimisation, it is recommended that the business process experts and the SMEs and the Business Analysts should see if the process can be optimised by removing any redundant steps in process or maybe by using some built-in features in the applications that are involved in the process. And, lot of times we have also noticed that after such an optimisation is performed, RPA is no longer required to perform the automation. Because the process itself gets very fast and automated through different ways.

Another challenge we have frequently seen is the “Lack of required skillset”. So, we have clients who started their RPA practice by training their business users in RPA and getting their initial processes automated. But as the practice started to grow the same users started to find it difficult to keep up with the pace. Also, they had to support the processes in production for any maintenance and issues that came while the processes happen.

Thus, even though the RPA platforms are projected as business user friendly, they require certain programming skills in order to build a sustainable automation model. And this becomes more evident when it comes to scaling RPA across departments.

Now … another classic case of failure for RPA is the “Automation alternatives not explored”. Now this won’t actually cause the processes to fail. But, they will fail to deliver as expected. So, processes will perform perfectly fine in production, but probably they will not be as fast as you expected. The output won’t be as much as we expected….mostly, in terms of performance, and thus it will very heavily impact the RoI. So, you again need to remember, RPA is not a one-size-fits-all automation solution. There might be better ways to automate a process or part of process … which was not explored will result in delays and heartburns later on. The use case we just saw Salesforce to SharePoint migration is a classic example of this. And last, but not the least, a strong leadership is always required to bring a cultural shift in any organization, and we must remember that RPA is one such cultural shift. Lack of leadership can result in low adoption and less ideas for automation from business. A regular review of progress and at times re-alignment of goals by the top management is generally of great help in keeping the automation initiatives alive. All right! Enough of those failures. Let us now see a very interesting process that we received some time back from one of our clients.

Use Case 3

Candidate Onboarding with HR

What we are seeing on the screen is the process that the client was performing with their HR department. Now as you can see, the HR person opens an excel file with the list of new joiners, sends an email to those new joiners who will then fill out different forms and provide the identification documents etc. Documents and form will be verified by the HR person. If something is not in order, the HR guy will again send that email back to candidates saying you are missing all these things and this loop will continue. If everything is in order, the HR person will upload all the Data in HRMS and finally update the initial excel with the date of joining. If you see, the process is highly complex and requires human intervention in between the process itself. And thus, the process itself cannot be automated in its existing form. But at the same time, we also realise that lot of part of this process can be automated like launching the email, sending email, uploading data to HRMS system etc.

What we did is, we got into the discussion with the HR and found that there's a maker/checker flow available in the HRMS system for candidate verification. We then worked with the Recruitment team to tweak their process a bit and moved the document verification part from a completely manual to a maker/checker process. We also introduced the naming conventions for documents to be attached in the email by the candidates. This way the Robot knows which documents are for verification and which ones are forms that the candidates have filled.

So, after that the process that came up looked like this. Here almost everything can be done by the robot. Launching of excel, sending emails to the candidate, verifying all the data and the documents provided by the candidate, getting the data in HRMS. So, the complete part can be automated and done by the robot. The only thing which remains with the end user is being the checker of the data in the HRMS and updating it in the mail list.

What we achieved here was 90% of the process got automated by optimizing and reorganizing it. There were some post production issues related to the form validation but with our **proprietary Support Notification system**, our Support team always managed to be on the top of them and resolved all those issues quickly.

Result:
So as you can see … A bit of tweaking and optimization can make impossible looking processes achieve great results with RPA

But a word of caution here … If you are just starting out with RPA, choosing the right process for automation can be the difference between the failure and the success of the whole RPA practice. So it is of paramount importance to strike the perfect balance between complexity of the process and ease of implementation in order to win the confidence of everyone. Processes like this.. this should be part and taken up later once RPA practice stabilizes.

Alright! So, moving on to our next use case.

Use Case 4

Data Upload to ERP System

Here robot is deployed to receive the data as Excel attachment in emails. The robot then downloads the excel, performs some data scrubbing and finally it uploads that data in the ERP system. This process worked very well on day when UVT environments and it was almost 80% faster than what the human was doing at that time. But on the first run itself, we found that process took very long time to complete. Longer than what it was taking at when it was run as a manual process. Then we

involved the client's IT team and the network team and we found that there was a network latency being caused because of the difference in geographical location of the ERP system and the robot where it was executed. So, we talked to them and tried to find out whether we can increase bandwidth or moving the ERP server to a location where the robot is. But all those possibilities were ruled out. So, we were left with only workaround which was setting up a machine in the same geographic location where the ERP system was and used remote desktop to connect to it from the robot. But this also meant, that we will have to rewrite the whole process because the technology involved got changed and surface automation would get introduced in it. Also, the IT team would have to procure the hardware to setup in the same geographical location. And it was not feasible to do all these things just for one process. So, the process finally goes on a hold and gets scrapped.

Conclusion:

What we learnt from this process is … Involving all the stakeholders to get a complete picture is essential before taking any process for automation. If the IT and Network team had been involved in the initial phases of the process itself, maybe they could have told us that this kind of issue could have occurred and the automation wouldn't have done at all and this could have saved us lot of time that otherwise got wasted on the development and support for such issues.

And now … let us look at the final use case

Use Case 5

Dashboard Reporting using RPA

Here, a Robot was deployed to periodically receive data from 4 different systems, out of which the Backup server and Disk space monitoring systems would send the email attachment to robots every now and then. And, for the other two systems the robots will login to the web app monitoring system and the ping server to fetch the latest data. It then consolidates all the data in one excel, runs some business rules on it and then finally generates and sends the dashboard to the relevant stakeholders.

Now, as we can see, all the systems involved here are completely different from each other. Some of them are even third-party legacy systems in that organization without any possibility of performing deeper integration with APIs.

We did a quick feasibility check for remaining two systems and we found that robots could actually log into the systems and get the data without any issues. And since we had already faced some kind of issues in the previous use cases, we also talked to the application owners. And mind you there are 4 different applications involved here. So we spoke to all of them and the IT department as well and they all signed off saying that they won't be replacing the legacy systems anytime soon. And there won't be any such issues as faced in previous time. So, finally, the process was cleared for automation although some of the steps like data consolidation …it was a very lengthy process, but it was very clearly documented ..very clearly… had very clear rules basically which made it a perfect candidate for RPA.

The process was developed and tested in almost 4 weeks thanks to the consolidation part which took most of the time but the outcome was a very stable process with 100% human effort saved.

So, we can see that processes such as this which involves legacy applications and there is no way of deeper integration are best suited for automation using RPA

With that, it's now time to summarize our learnings from this session …

1. Of course … the most important thing is to choose your processes wisely to get the best ROI
2. At the same time, Buy-in from leadership is critical to maintain the harmony between robots and humans in the organization
3. We also saw that RPA is best suited when legacy and proprietary applications are involved where there is no scope for deeper integration
4. And finally … process optimization prior to automation will help you achieve great results with RPA

And Now … Over to Niladri for Q&A

Q&A

[Niladri]

Right, Thanks Aditya! And, that was a wonderful walkthrough of the use-cases. Really, quite interesting! Alright! So, guys we are open for Q&A session. I have already been seeing couple of questions coming there. Many of those are just.. let me pick up a few of those in the interest of time.

Alright, let me pick up the first one from Alex. Hi Alex, hope you are doing good. The question from Alex is …

Q. What type of Commitment issues have you faced while doing RPA and from whom?

Pretty Political… No.. just let Aditya respond to you to that

[Aditya]

Hey Alex … thank you for your question. So, if you see … a lot of stakeholders are involved when a process goes for automation. There are Business Process Experts, SMEs, Application Owners and even the IT Security Team and their involvement… everybody's involvement is very crucial to make any automation successful. Now, if we don't get a complete process details from Business Process Expert or Application Owner fails to report a major upgrade in the application coming soon, the processes will start failing in production. And this happens as far as we have seen … majorly for two reasons …1. fear of new technology and 2. Their job security. So, people are generally afraid that if they get involved in the new technology and if it fails, then the management might hold them responsible for it and thus they choose to stay away from that and as far as the job security goes, organisation must take confidence building measures like resource allocation, planning, skill upgradation etc in order to assure employees that their job is not going to be in danger because of RPA. I hope that that answers your question.

[Niladri]

Great! Great! I see that questions are already piling up. There is too much of those.

Alright, the next one is from Snigdha. I hope that I pronounced it rightly. So she is asking..

Q.2 In that vendor scorecard use case, who was to be blamed for the failure – is that technology or is that human? Right!

Ans: Well … Hi Snigdha.. Great observation first of all I must say. Well, we cannot really blame technology in this case.

[Niladri]

That's true!

[Aditya]

This was you know more to do with the transfer of knowledge or understanding of application which is being automated. Should there have been you know a prior knowledge of this dynamic change, either the change could have been stopped at the application level or maybe you know the Robot could have been configured differently to handle such scenario. So, I would simply say that it was a lapse in communication between users which caused this issue.

[Niladri]

All right! Ok. As we continue with the Q&A session, we are also starting with this short Poll which will help us improve. I will request the participant to respond to that. These are quick short questions, right! Over now to the Question and Answer again. The question that we are picking from Stefany

Q.3 Many RPA platforms claim their Surface Automation is very powerful. Ok. So, she is talking from probably the last of the use cases of the failure that you talked of.

[Aditya]

Yes.

[Niladri]

So, how has been your experience with that? She is asking how has been our experience with the surface automation.

[Aditya]

Well, we seriously advice against surface automation unless and until it is an extreme situation. Well, if you see, surface automations have high degree of failure and it is actually susceptible to even screen resolution changes. So, I would say like, the tolerance level of the Robots is very low in this type of automation. Any interaction that Robot makes using surface automation is based on coordinates and not the actual elements on the screen. Whereas, the same doesn't hold true with native support where Robot clearly knows whether it is interacting with a button or drop-down or a blank screen. I hope that clarifies.

[Niladri]

Yeah, that's kind of a blind robot! Alright!

[Aditya]

It's true.

[Niladri]

So, thank you, Aditya. I believe in the interest of time we will stop with this Q&A session. However we shall respond to all your unanswered questions separately over the mail. Alright!

So, once again thank all for your time. You should receive the link to the webinar recording in your mailbox in next 24 hours. We shall be happy to connect for any of your queries with regards to RPA in general or specific to our services , please drop us a note at our mail id rpa.info@v2solutions.com. Till then stay happy and stay connected.

Have a great day!

[Aditya]

Thank you all! Have a great day! Bye bye!