

Ep 53 Process Automaton for Large Systems

00:35

Welcome to the federal tech podcast. My name is John Gilroy and I will be your moderator. Our guest today is Michael Beckley Chief Technology Officer and co founder of a company called Appian A P P I N and yes, indeed, we're going to dive into Process Automation. But first, I would be remiss if I did not say we're recording this from Munch BBQ in lovely downtown Purcellville. So Michael, what are you going to enjoy after this interview?

00:59

I'm going to dive into some mongst Barbecue.

01:01

Yeah, Matt is good. And don't forget the mac and cheese. It's delicious. That's

01:04

what can't forget the mac and cheese.

01:07

Okay, we gotta get serious now process automation. I have interviewed you many times over the years. The last time I interviewed you were on Zoom and you had like an old fashioned Apple computer in the background. And it was like an apple to your office in Vienna. What was that?

01:21

Yes, I had, I have a lot of old Apple computers, Apple twos, two E's old Macintosh is really clear inspiration for what we do in Process automation and low code is that whole original vision that that Steve Jobs and Wozniak had for empowering people to do extraordinary things to the whole vision of the personal computer to allow anyone to take their idea and turn it into a business.

01:47

I just want to contrast now because behind you now is a Christmas tree made out of empty whiskey bottles. So you've gone down a lot in life, might you know

01:56

that I wouldn't say down at all, I would say I think this is a fantastic setting to talk tech.

02:02



Let's talk tech process automation. You know, if you go into Google Trends and type in business process management, you see all kinds of graphs over the years. If you do another test, and you put in process management, Process automation, you see a similar graph. So what is the difference between process automation and business process management?

02:18

Oh, great question. So Process Automation is, is really the next evolution of process management. You know, we used to be more concerned about connecting systems and, and keeping track of work. Whereas today, we now have all kinds of incredible new technology that allows us to delegate work, to rope robotic process automation to bots, to AI algorithms, to, you know, handle intelligent document processing in an automatic way. And, and, of course, automated workflows. So and business rules and rules engine. So now, when we talk about business process automation, where we're at, we are defining a new market, it's a convergence of all these different new technologies that allow people to cut costs and and operate far more efficiently, and really deliver much better service to customers and citizens.

03:08

A month ago, Jeff Gilmore from Excel sat right there. And he talked about CI, I thought it was a confidential and former. No, no, but it's continuous improvement. Yeah. And so what the heck is continuous improvement got to do with Process Automation? Does it fit in the discussion? Or is it part and parcel of it?

03:24

No, it's it's very much a part of the conversation. Because the whole point of digitizing a process is to empower your people to actually make positive change. It's a very optimistic point of view to trust that your employees have brains and have just been held back from being able to make the kinds of improvements they want in the way that that work gets done, because they haven't had the right tools. And they haven't been shown that work doesn't have to keep going the way it always was in some secret way. But instead, by by visualizing and digitizing it, now you're empowering people to improve the process in a continuous way by giving the metrics and feedback on how the process is operating.

04:00

Yeah, there's so many terms involved with this whole processes, Intelligent Business, Process Management, dynamic case management, digital process, automation, robotic process, there's so many different aspects of it. I wonder if it's a if it's just the same terminology? Or is the same techniques being rebranded or so where's the differentiated between all these things? Well, every analyst

04:20

of course, needs to put their own stamp on it to bring their own twist but what you are seeing is new technology that has transformed what can be done it is it is extraordinary, you know, what we've been able to accomplish now when you combine the you know, the power of the cloud with big data analytics and and artificial intelligence and machine learning, and to bring that all together in a single workflow, and provide people with that ability to constantly change how they handle cases and and respond to new regulations respond to new requirements, and do that without having to wait months for it to make a change with a low code approach.



04:57

And now we have a question from 1848 Back when you're in Dartmouth studying government, I'm sure you had a Western Civ class and maybe a survey class of France and learned about the revolution. Now I'm in trouble or the eight. And my question to you is evolution or revolution? You know, I see Appian over the years getting, is this just building on something something evolving? Or is this complete? Is it significant enough to say, you know, Process Automation is significant, it is actually a revolution.

05:23

This is at certain point, you do achieve a breakthrough. And I think we've done that in the last, and the last year when you see what's now possible with artificial intelligence. And when you see what's now possible with, with a new breakthrough technology, like data fabric, you know, the last decade has been about, you know, putting systems on the web and making them accessible to machines through application programming interfaces, or API's. But what that did was make the world very complex, and to reason over and to, to improve, and to change and to discover how work was really happening through all these hundreds of different systems. And now with a with a Data Fabric, we can tie all that together in a simple way that the business can understand that that an agency can understand and that people can improve and change. And now we can, when we find those bottlenecks in a process, we can delegate that work to bots, and to, you know, to AI algorithms in ways that were just not even available a few years ago, or even a few months ago, when you see the breakthroughs like chat. GPT years ago, I interviewed a company called Brocade. And they talked about data fabrics, and I first learned from them. And when I was doing my research for this interview, I came upon data lakes and data warehouses, and then all of a sudden, no, no, no, no, no, no, we don't need no stinking Lake, we're gonna use a fabric with this. And so it is just a different approach to large stores of data, isn't it? Well, it's more than a different approach. It's a different technology that allows you to stop collecting all that data in one place. But instead, take advantage of the systems you have the databases you have the API's you have, but treat all that data as if it was local. And that's the patented technology from Appian. It's allowing you to operate as if it's all one, one local system. And, and yet, you're actually answering complicated questions by pulling data together from many different places. So you can have a complete picture of a case, a complete picture of an investigation, a complete picture of a business process. And even though you didn't have to first spend years trying to pull all that data together and extract it, transform it and load it into a data lake.

07:21

I was going to Starbucks this morning. And I thought about the conversation we had five or six years ago about, oh yeah, we work at Starbucks on our little goodies and help manage that. And it was a transactional experience I hadn't so so that's what I understand the fabric allows for more of a transactional experience and historical experience speaking of revolutions of 1848 Ah,

07:39

so take us back to history here. In, in my defense, I was spending most of my time studying international relations and not US history. But But yes, a lot was going on in 1848, which hopefully is not analogous to the division and tensions we have in our country today. But But yes, you transactionality is a critical part of a data fabric. And historically, we were thinking about bringing data together so you could analyze it. But with a Data



Fabric, we can operate in real time, both taking transactions and analyzing and that's critical for what you were talking about continuous improvement, you want to not have to wait days or weeks or months to sell for someone to pull the data together to answer a question like did this process work? You know, are the changes we're making? Effective? You know, in today's world, we have to be able to have real time visibility into a process. And we can't wait for you know, later.

08:34

No, Mike, I think Appian has become very pervasive in the area here. I think if I looked at my previous 10 guests, maybe half of them, you know, partner with you somewhere with the federal government, I think you're in like 200 government agencies is that the numbers that's

08:46

impossible to believe I've certainly lost count after we crossed 200 public sector agencies around the world, including most cabinet level agencies here in the federal government, and variety of state and local governments like Texas. And and yeah, it's also a really, our approach is so different. We're not trying to own all of an agency's data, we're trying to operate with the systems they have and connect them to be that that mortar between the bricks if you will, and that naturally makes us a good partner to a lot of other technology companies and an integrator. So we are really happy to have that approach. And I, I mean, I also lead our tech partner program and and it's a lot of fun, to be able to focus on building solutions for customers that take advantage of the investments they have. And it's not all about Appian.

09:33

I tell my students that in order to be terrific, you got to be specific. So I'm gonna give you a specific here, you know, I read an article this morning about the VA, and I kind of knew these numbers, but I didn't know these numbers. Last year, they handled 1.7 million claims. I mean, I mean that's you know, that's what you add up to something there and and then further in the article, he said, Yeah, typically takes 100 days to manage your claims. Like, if anything needs audit. nation, it's got to be the VA. I mean, this is the perfect ground zero for you, I think

10:04

VA is we're very excited to be working on the VA, with the VA on some new opportunities to help, you know, knock down that that length of processing. And yeah, there's huge opportunity there. And I think the leaders of the VA have a clear vision about using this new technology to transform the process and digitize a lot of this claims efforts so that they can better serve their veterans. And, you know, we're proud to partner with them to do that. And I think that it's not different from what you see, in the private sector, the biggest banks, the biggest insurance companies, they have these huge problems with really long claims times really long, you know, case resolution times, and, and they're also digitizing their case management and their their process automation, to achieve the same types of results.

10:51

So if you take a look at the time it takes for typical plane ticket, it just seems like it's just it's, it would be very frustrating. And so are there. One other time savings is there money saving involved this as well,



11:04

it's a well, it's a huge potential and saving money, we first off here, if you if you can move a process into the digital realm, it doesn't take as many hours to resolve, then you can have a much better throughput, you can resolve more cases, and you can resolve each of them for a lot less in terms of cost. It's absolutely critical in that in that in that vein, it's in this year, more than ever, right? People are starting to recognize that money isn't infinite, interest rates are going up money is becoming more expensive. And and that drive to use automation is so essential as well, we have record unemployment right now. And so it's not like you can just go hire people, you don't have cheap money to do it. And there aren't the people to find. So you know, there is no choice but to take advantage of this revolutionary new process automation technology.

11:53

You know, Mike, I did live radio and NPR for 25 years, and I was scared to death of using an S bomb. I didn't. However, in the federal government, now they're talking about s bombs now software bill of materials. Yeah. So how does Appian fit in with complying with the software Bill of Materials requirements we see everywhere. Yeah, so

12:11

Appian already provides software bill of materials to our clients. And that's not no surprise, because we've had the advantage of growing up here in the DC area, you know, Appian is headquartered, right in in McLean, and our campuses there, that's where we make the software. And, and so for over two decades, we have been proud to serve our federal clients, and therefore get the requirements from them. And, you know, to write secure software to write, you know, resilient processes. And, and so we were among the first companies to get FedRAMP certified, you know, we provide Aisle Five capabilities to our defense clients. And that, that commitment to regulatory compliance and security is job one for us.

12:53

There are all kinds of figures out there about software, recent study, or read from GTI T said that 90% of systems generated today are comprised of third party apps, you just interact with that or how does your system in America something like that?

13:06

Yeah. So that's a vital point I was we were talking about a little earlier, you said, you know, so many companies that you talk to work with Appian. And so what we're doing is, is so different from many other megacorps in the software space, whose value proposition is give us all your data, and we'll take care of you at the end is saying no, it's it's an agency's data, they should keep it and we're able to work with the systems you have, and make it look like we've taken over all your data, because we haven't it's, it's that data fabric, you know, capability that allows you to put together a single operational picture, even though you're actually working with many different systems, and, and happiness, that process orchestration, that process automation, that keeps the work flowing, even though a lot of different systems may be using the work. And that's a radically different approach from say, the old world of, you know, creating a monolithic system with a layer cake of dependencies. And then, you know, when you have to make a change, when there's a new regulation,



there's new, new, new compliance activities, new case types, new missions for an agency, you know, having to start over and try to unwind all those dependencies, you know, taking an agile low code approach, with still the central governance of a platform like Appian. Now agencies can actually change in real time.

14:20

Early this morning, I did a deep dive into process automation. And I got all kinds of vocabulary words, got it my vocabulary notebook and read terms. And of all the curious terms, the term was process mining, in my mind, what is process mining got to do with with Process Automation?

14:37

Yeah, so process mining is a new technique using machine learning and artificial intelligence to actually assemble the process and monitor it and for conformance against what you expect. So a simple way to put this is rather than asking dozens of subject matter experts to stop what they're doing and tell you what the process is, and document it we can actually extract From the activities from the logs from the systems they use, and then this using machine learning, the process mining algorithms will build the actual process. And this is really fascinating because what people think the process is, is oftentimes, a fair bit and variance from what the actual way workflows. And so you find all these places where rework is happening, where errors or exceptions are happening, or why is the process canceled? Why is it case canceled and restarted? And, and it's, it's allowing the organization from from the top to see where are their bottlenecks. And then when you implement a modernization effort to monitor and make sure you're getting the results you expect.

15:37

So it's kind of like an event log on steroids. What it does is looks for errors, but also looks for opportunities, which it there has to be some kind of more sophisticated artificial intelligence involved there. There's the phrase that pays. Yeah, so that's where it fits in.

15:52

To AI. Yes, but it's really you nailed it there, John.

15:55

Well, first time I've ever done that. Work, you know, I love the word orchestration. You know, when I first heard the word orchestration, I was doing an interview and I said, Well, wait a minute, I've got gone to the Kennedy Center that you know, that piano stays right there that are his bases in one place. But with Appian is moving all over the place, you know, but I guess orchestration is the best word to describe multiple processes come and go extreme degree of amount of data coming into that? Can't even believe it.

16:23

Yeah, what makes us different is we don't just do the orchestration, we provide tools to automate where you see a need to play faster, play better play more accurately.

16:33



Well, I know a Disney World is but I don't know what Appian world is. So tell me about Appian. World Appian

16:36

world is one of the largest Process Automation events of the year, it is our annual user conference. And it's coming up may 1 Or third. And there is a large track devoted to our federal government clients, with representatives from civilian agencies and DOD. It's a great opportunity for federal tech leaders to network with their peers and hear from them the latest developments in Process automation, and workflow and process mining, like we've been talking about in Data Fabric, see how it's actually at work. And that is happening in sunny San Diego this year.

17:12

Good, good, good. I, I listened to podcast called Feds at the edge. And it's not emotional, psychological thing or suicide was Feds edge computing. We know that. And so what about this whole intake of data? I mean, where does I mean, there's 30,000 satellites gonna be launched in the next six years? I mean, talking about data coming from everywhere, Geo and all kinds of stuff. So So where do you fit in that discussion?

17:33

Yeah, well, so our approach to that is, is really around the data fabric, and that leveraging of these different systems, rather than trying to collect all of that data in one place, you know, we are allowing you to work with that information where it lives. And that way, you don't have to migrate at all. And when you're talking about now, not just terabytes of data, but petabytes of data, preposterous amounts of streaming data, it's really important to be able to leverage insights from it without having to migrate or move it. And that's the premise behind the Data Fabric, because the processes of the future are continuously monitored, continuously improved and fed with with event data with IoT data with these data streams here you're talking about and, and so it is all the more important to have a scalable model for handling the that that vast amount of information, you can't just you can't hold that in one monolithic, you know, data lake successfully, and you can't, you know, at a DOD scale, for example, you know, you can't assume that you're going to be able to bring that all into just one company, one vendors system.

18:34

I'm on the train once a week, I'll be in the train tomorrow. And the last time I was on a train maybe a month ago, I saw an ad on the train for Appian of all things. It was a blue ad, I remember it, I'm thinking to myself, how would people get epeans message confused? Or so what are they get confused about? And typically, if you just have to see on the train, what do they think you are and how do you want to straighten that out?

18:53

Well, the biggest confusion is how to pronounce it. Appiah, you know, for some reason, some people have some trouble and say APN, but it is Appian like apples, or applications and or the Appian Way Rome's first road, which is what we're actually named for. But I think that the confusion if any, has just become around the the low code approach. There are so many companies now saying that they're low code. And and so what we want people to understand what makes Appian so different, is truly our focus on process automation on case



management on what you can do with low code in the context of improving a business process, improving a way an agency, you know, serves its citizens and results cases.

19:34

I'm going to give you a final question here. I earlier talked about the revolutions of 1848. Now I'm going to quote a famous philosopher, and I want you to reflect on his statement. This is a yogi actually named Yogi Berra. He said, The future ain't what it used to be. Want you to tell me what's going to happen next five years as far as process automation, the Federal Exactly. One week by month, next five years. What do you see ahead?

19:58

Yeah, so it's easier for me to look Back, uh, you know, I had a, an old employee was in the office yesterday and he brought in this, we used to go on cruises to the Caribbean and a whole company and back in the day and, and we gave these little passports and in there I had predicted the future. And you know, pretty well, you know, Appian being \$10 billion company, that kind of thing. But most importantly, that I, you know, in the future, we will be interacting with our processes by talking to them, rather than, you know, having to write the code rather than having to, you know, build an interface, we'd be able to just talk to our processes and find out where there were problems where we needed to intervene what we needed to do to, to resolve issues, because they would talk back to us, and I think that's what we've seen in the last few weeks, just the beginning of, you know, with, with chat GPT and large language models. That's just the first we're just at the very start, and they don't work very well yet. You know, they're hilarious to talk to, and we can give you all those examples we're all reading about, of chatbots gone mad, but they are clearly a breakthrough is a breakthrough moment in how we interact with our machines and our processes. They don't solve all our problems. You know, the chat bot isn't going to understand a process, but it is going to be the way we talk to a process and the next five years.

21:10

Michael, unfortunately, we're running out of time here. You've been listening to the federal tech podcast with John Gilroy. I'd like to thank my guest Chief Technology Officer and founder of Appian Michael Beckley.

21:22

Thanks for listening to the federal tech podcast. If you liked the federal tech podcast, please support us by giving us a rating and review on Apple podcasts.

