Architecting the Cloud, part of the On Cloud Podcast

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Title:	**Intelligent automation: helping companies handle business unusual**
Description:	Things are changing very rapidly, with all the upheaval that's hitting the market—and the world at large. However, as usual, businesses are coping, and they're finding new ways of handling disruption and staying competitive. One way is through intelligent automation that helps companies automate much of the software production and management process by putting some of it in the hands of business users—which often removes months from the timeline. In this episode of the podcast, Mike Kavis and guest Automation Anywhere CTO JP Morgenthal, discuss the drivers and benefits of intelligent automation, as well as other ways companies are handling the current, massive disruption to their environment—and whether things will ever go back to "normal".
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Operator:
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Mike Kavis:
Hey, everyone, welcome back to the Architecting the Cloud Podcast, where we get real about cloud technology. We discuss what's new in the cloud, how to use it and why, but more importantly we talk to the people in the field who do the work. And I'm Mike Kavis, your host, chief cloud architect over at Deloitte, and today I am joined by JP Morgenthal. JP is a vice president and CTO for the Americas at Automation Anywhere. JP, I've had you on a podcast before and we love your deep experience and thoughts. So tell us a little bit about yourself and then we'll get into some cool conversation.

JP Morgenthal:

Excellent, thanks, Mike. Yeah, I love coming back and talking with you guys. This is a great podcast. We always have fun, interesting conversations. So I recently joined Automation Anywhere back in October. They're one of the leading robotic process automation/intelligent process automation companies in the world. Our software is used to develop out human-augmented machine tasks and remove repetitive processes very quickly, usable by business users and technical users and the like. So really around delivering some level of automation around repetitive tasks, integrated human and machine collaboration, and being able to deliver them very quickly into production without requiring a lot of coding.

Mike Kavis:
Yeah, it's cool stuff, and I've been focusing a lot, lately on operations, and the reason being, we've both been doing this cloud thing for a while, many years, and I think the first five or six years of it, it was all about how do you architect this stuff, how do you build code, how do you CI/CD pipelines. And I think a lot of that's been figured out, but then when we get to the cloud, and all of a sudden how do you run this stuff? All of a sudden stuff's breaking. We didn't rethink a lot of processes. We didn't rethink operations. So I think that's being tackled a lot lately, and then the next phase now is "You know what? We should start automating a lot of this stuff. And why are we still doing some of these tasks?" So there's a big shift to ops and to intelligent automation, and for someone working in that space, I'd like to get your take on what you're seeing as customers shift towards that and what's the drivers for them.

JP Morgenthal:
Great, a great topic for discussion. So it's been really interesting, for me. As you know I've been involved with DevOps since 2010 and really exploring the edges of the ability for people to become more operationally successful around this area of cloud, but not just cloud in general. The management and deployment of applications within an environment, right? It's always been an area of great difficulties for organizations. It's led to a lot of downtime. People I think are generally understanding of the benefit of DevOps finally. They're seeing the benefit from it. They're escaping the common issues that have plagued IT in delivering applications to users by implementing both immutable and repeatable processes around what they do.

And so – but I've also been a big fan of automation in general. I've been a big fan of RPA for a very long time. It's one of the reasons why when I was looking to leave DXC I really wanted to be part of an RPA company. My first job out of school was automating the scraping of 3270 screens for a major bank, so that we could do intelligent processing without having to require a human copying data off screens. And so ever since then, I've had a bug for trying to see how far you could take this. If you consider not only automation being what you can code, but the capturing of how a user interacts with their machine, the keystrokes, which applications they're using, what data they're looking at, and being able to use that and incorporate that into your daily routines or into the process as a whole. So a lot of times I talk about what was invisible data is now visible, through this process. And it requires I think a collaborative effort by both IT and business alike in creating these new automated processes end to end.

And this is really exciting and I just actually blogged on this. In the past, I think everything was delegated to IT that was technical. And so there's been this friction, if you will, where the business is like, "Look, all I really want to do is move data from A to B, and you're telling me it's 16 months," because the business person doesn't understand that what's sitting behind that request is an entire organization that's focused on making sure that all the hardware, all the infrastructure, all the datacenters, all the networking, all the applications that run and maintain all the data, is part and parcel of what they do to keep everything running. And then all of a sudden – so that's a job. That's a very consistent, repeatable type effort, and here comes this one-off process into their world. "Can you go do this?" Sure, our people are the ones that have the skills to technically go do this, but timing-wise, scheduling-wise, the ability to have the right individuals partake in this process, that's the thing that is going to be a burden for us. That's the thing that's going to require us to have extra time.

And so that friction has always been there, but what if you could – what if the businessperson could say, "Hey I can get 60 percent of this done myself. I just need 40 percent of it to make it production-ready and resilient, do error checking, make sure I haven't done anything that's going to break confidentiality release it into production." What if that burden could be balanced that way. All of a sudden now we have a whole new motif for how we build and think about our applications, our processes, and getting them into production. And that's to me what I'm starting to be part of, is that collaborative effort. I know that was very long, but it's such a great story. It really is. And I don't think most IT people get to partake in it.

Mike Kavis:
You know, it almost completes the thought I was having with a client the other day. They were asking my opinion on containers and serverless and functions as a service, and I brought them through the journey of the next level of abstraction. And I left them with "Yes, you should pursue functions as a service because pretty soon there's going to be another level of abstraction," and maybe this is it. Maybe what you're talking about – we're building platforms for our developers, so we hide the complexity, the plumbing, the security and compliance of the lower layers of the stack so they can build faster. Maybe we need to be building platforms for our business users so they could just implement things like RPA where it makes sense or different technologies. What are your thoughts on that?

JP Morgenthal:
It's an important question. I got taken out when you said I've been talking to clients about Kubernetes and clusters. It's amazing how they still want to have these conversations. In one hand I understand it. I understand where they're coming from. These are new technologies. They're consistently changing, very, very rapidly changing right now, and people are just trying to get a handle on how do I use them? And then the question is really how many people do we really need focused on how to run and maintain a Kubernetes cluster, right? When does this become part of the general infrastructure that – I use this term a lot these days, democratize, right? That anybody could use. I have a task. I want to run it. What's the best place for it? A container. Okay, great. How do I use that? How do I use that container without knowing command line routines for Kub control, right?

That's one place where we see a lot of where automation has been coming in. You know, we've shifted a little bit. I think that some of the operational people may not be the experts there, but they can use the technologies. But everything is still very much left to this automation that is driven by scripting, if you will.? A very complex, difficult to read, difficult to manage, set of documents that are maintained by a small group of people, and then like I said – and I've gone into this RPA area. And we have a tool that is drag and drop and everything, from my palette I have the ability to send a RES command. I have the ability to extend the platform so that I can send up an AMI on AWS or Azure. I can read data and transfer data. Why wouldn't I want to do that visually? Why would I want to sit there and develop this in a scripting language that is very fragile, it's based on positional semantics still.

I get lost in these questions. And I know that a part of is that there's something about the engineering mindset, the developer mindset. They feel more comfortable and are able to move more quickly given this environment, given the ability to sit down and just create, if you will, in an editor.

But the downstream of that is that's all got to be maintained. Somebody has to understand what you wrote, what you've built, what you've developed. How do you maintain that long term? What's its viability? What's its sustainability for the business? And so, no, I think there are different sets of tools that haven't been explored by the engineering organizations for whatever reason, and yet I'm starting to now see that if this businesspeople can leverage these tools effectively, how much more effective would they be in the hands of somebody in IT with regard to getting something out rapidly to the market, right, getting something done quickly?

I actually did a summit recently in Bogota, Columbia – last trip I'll probably take for a while. But onstage I developed a bot in four minutes that allowed me to take a CSC file with names and phone numbers in it and send everybody in that file a text message. Think about that from an operational standpoint, the ability to do that.

Mike Kavis:
Yeah, that's pretty cool, especially it actually works in a live demo onstage. So the point there is we kind of give the end users, the business really robust tools, but we don't kind of give yourselves those same tools? Is that kind of what we're saying here, that we're doing it all by hand, or ?

JP Morgenthal:
I don't know if it's a shoemaker's children issue, which I believe that it's a little bit of that. But I also believe that and I've always talked about this, right, the engineering prowess, the need to kind of dabble and be proficient in the dark arts, make things more complex. So right before I joined Automation Anywhere I had written an analyst report on the RPA market, and one of the vendors had represented to me that they know for a fact that a CIO made the decision to go with a more complex business process package because they were concerned about the business users being able to get their hands on it and create and the mess that that would create in the organization. Doesn't that just seem backwards to you?

Mike Kavis:
That's very backwards, yeah.

JP Morgenthal:
This is your concern, that the business users might actually be able to be productive and take advantage of it? So let me slow down the organization and the agility of the business because I feel insecure. This is prevalent out there, Mike. You know that.

Mike Kavis:
Yeah, and at the end of the day our job is to empower the end users. It should be, right? And that gets lost in translation. I think sometimes we get so embedded in the technology stacks that we lose sight of, hey, this is a dog eat dog, very competitive world. The faster we can bring new services and capabilities to our end users, our customers, the more competitive we can be. And somehow that gets lost sometimes in technology wars internal within IT, and that's kind of sad to see sometimes.

JP Morgenthal:
It really is. So we've been having, as every business in our industry probably is, discussions internally. How can we help out in this COVID crisis? And one of the things that's occurring is that a lot of businesses are struggling under the weight of new business processes emerging, specifically around – these are one-offs that are just around dealing with this crisis. First response workers, right, they're under burden. They're overstressed. There are so many more cases that they've got to deal with. You know, they're dealing with many more hours having to be on shift. Just something as simple as sending out a text or an e-mail to them asking them, ''How many hours have you been on? How are you doing? We're trying to track everybody, and we want to make sure that you're doing okay." This is something many hospitals have kind of asked for, right – around the world, too. We see it coming in from Australia. We've seen it coming in from Switzerland, requests from national health services. "How can we check in with our people? How can we be more connected to our people throughout the day as they're rushing from patient to patient dealing with all this?"

And so these are the types of solutions I don't think that IT in a hospital are prepared to manage, build, and deploy. And how quickly can you get something out and that works and that's operational for this purpose. So the ability that in a couple of hours you could have something up and running that is a form on a phone or an iPad, right, or through the web, and basically ask some questions and being able to distribute that and take that information and catalogue it and put it against a dashboard.

Back when I had my own company that was doing omnichannel retail software and warehouse management, that was the kind of thinking I had, was that something that, in store, would – you know, you could put your tag to because back then, it was mid-2000s. We didn't have all the NFC and contact list stuff that we do today. But you'd have your barcode tag on your keychain and put it up and it would know basic things like what's the weather outside, what's happening in the other stores around me. And it would put up a deal for you for the day. "Hey, here's your deal for today when you're in the store. It's raining outside – umbrellas, $2.00 each." You know, something as simple as that, so I love those ideas. I mean, I have been trying to encapsulate those ideas in product for years now. And I think it's the future, right, that very intimate experience with the customer, with the end user that allows them to benefit from the knowledge and the information that is all around us. And it's not there, and it's surprisingly not there, given all the effort and work that we've seen and the discussions we've heard about things like artificial intelligence and machine learning over the past few years.

Mike Kavis:
Yeah, so I'm going to pivot to the last question. We're going to get philosophical here. So we're in the middle of this crisis and everyone's working from home. A lot of conferences are canceled, but they're going virtual. You see the government response. Everyone's acting like a startup, if you sit back and think about it. And I think when this is all said and done, we're going to see that large organizations actually moved fast in that mode. So my question is do you think any of this is going to stick or are we going to go back to our old ways? What are your thoughts?

JP Morgenthal:
It's interesting. Yesterday, I tweeted "We know the big economic question, but the really big economic question is, when this is all over what's going to stick. What services will we want back in the old way, and how will we continue to use the services that we consumed the way we did during COVID crisis? It's a great question and it's going to affect the economy. You talk about disruption, and I don't think we've seen anything as disruptive as this COVID crisis in hundreds of years. It's unbelievable, the impact worldwide that it's had. And you're right.

You know, we're learning about what works and what doesn't work, different ways of doing things, different types of services we need that we didn't have before. We're consuming services differently today, even grocery. I mean, people were already starting to use grocery delivery services. But now it's become a way of life for many. And what we're seeing is the system wasn't yet ready to handle the load that's been placed upon it, right, and it's reacting. Grocery stores are saying they're going to have to hire hundreds of workers because what's become important now is stocking, whereas before I think it was a secondary task to people in the store. "Hey, listen, your job is this, and when you're not doing that, stock the shelves. Go in the back." Default high-volume restocking is not something that has been of significant concern until now, right, because the volume and the demand is there that wasn't there before.

Now when this is all said and done, will people go back to buying in a more normal pace, the pace that they did prior to the crisis? Or will they act the same way? Will they be like, "Hey, you know what? I ate better. I ate healthier. I didn't eat out as much, right? So I know I can live that way, and maybe I'll just continue doing that. Maybe I will cook more at home now. We see movies are being released for download before going to theatre because you can't go to a theatre, right?

Mike Kavis:
Right, right.

JP Morgenthal:
So are people going to react? Here's an interesting one I saw today. Work from home stuff, new TVs, all the electronics. It's like, hey, I've got to live at home. I'm going to make my environment what I need, right, what I need to work, what I need to live better, big screen. So I don't know that we understand all the edges of the disruption, and I do think certain things will go back. I know that for many of our salespeople they're able to reach people more effectively and communicate with them more effectively than they were prior because they're not pulled out to meetings.

They're not being interrupted by their coworkers and the things that are happening in the office, and they have more time at home now at their desks. And it's like, all right, you know what? I can schedule a 30-minute call now. Whereas before I think that was really difficult. So some people may find themselves more productive this way. I think there's something to be said for having face to face meetings, for doing things in person, and I think we will long for it. And I think there's going to be a lot of pent-up demand for things when we exit this, and you're going to see a mad rush to embrace them.

So yeah, I do think things are going to change dramatically in the way we live, the way we do things, and I'm looking forward to it. That's all I can say. I wish I knew more what it looked like. I'd bet on it. But I definitely think, from what I've seen and what I'm anticipating, how people think and operate is going to be very different coming out the other side of this.

Mike Kavis:
So, we'll just have to wait it out. But that's it for our show today. Thanks for listening to this episode of Architecting the Cloud with JP Morgenthal. JP tell us where we can find you on Twitter.

JP Morgenthal:
At @JPMorgenthal, M-O-R-G-E-N-T-H-A-L.

Mike Kavis:
And follow JP. He's got a lot of great insights on everything from back in the day so, to cloud to now, intelligent automation, RPA. And you can find more podcasts by me and my colleague Dave Linthicum by searching for Deloitte On Cloud Podcast on iTunes or wherever you get your podcasts. I'm your host Mike Kavis. If you would like to contact me directly you can reach me at MKavis@Deloitte.com or follow me, @MadGreek65, on Twitter. That's it for today. Thanks for listening. We'll see you next time on Architecting the Cloud.

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