The Deloitte On Cloud Podcast

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Title: **APIs are IT gold: Salesforce's Param Kahlon and Deloitte's Kurt Anderson on how APIs drive digital transformation**

Description: In this episode, Mike Kavis talks with Salesforce's Param Kahlon and Deloitte's Kurt Anderson about MuleSoft's "2024 Connectivity Benchmark Report." The trio discuss how APIs, coupled with AI, enable digital transformation. Kurt and Param stress the importance of a sound API roadmap and they believe that companies with effective API strategies view them as "products" and value producers that boost tech-investment ROI. Finally, they examine how AI-enabled automation can fuel innovation and growth.

Duration: **00:26:40**

Mike Kavis:
Hey, everyone, welcome back to the On Cloud podcast. I'm Mike Kavis, your host and chief cloud architect over at Deloitte. And today I'm joined by colleague Kurt Anderson, managing director at Deloitte, and Param Kahlon, VP and GM of Salesforce. Gentlemen, welcome to the show. I'm going to ask you to tell me a little bit about what you've been working on lately and a little bit about your background and then we're going to get into what we're going to discuss today, which is the recent report you gentlemen collaborated on called, "*The 2024 Connectivity Benchmark Report.*" So, we're going to talk about that. But first we'll start with Kurt. Tell us a little bit about yourself.

Kurt Anderson:
Thanks, Mike. My name is Kurt Anderson and I'm a managing director in our Cloud Engineering practice at Deloitte. And I have the privilege of delivering cloud-led and API-led integrations in the market for our large corporate clients. So, practically, that means partnering with platforms like MuleSoft to define, deliver, and support composable API-led architectures that are in demand in the market today and are very topical. So, thanks for having us on the call, Mike. Looking forward to discussing it.

Mike Kavis:
They are in demand. That's the meat of our discussion today. Over to you, Param.

Param Kahlon:
Well, first of all, thank you so much, Mike, for having us on. Really appreciate the opportunity. I am responsible for our product strategy and roadmap at Salesforce for what we call integration cloud. Integration cloud is a combination of capabilities that we offer through our product in MuleSoft, which offers integration and API management products. But we also combine that with some automation products that have both organically and inorganically grown in Salesforce—things like flow for low code automation to RPA and intelligent document processing. And personally, I've been at Salesforce a little over a year and a half, but I've spent the entire career doing product management.

Mike Kavis:
Well, cool. Great to have you both. So, before we get into the big nuggets out of this report. We're going to talk a lot about APIs, especially when you're talking about the emergence of AI. But from someone who's been around for a long, long time, API is nothing new. This is probably 20-plus years of this being a really important technology in IT. When I first started in IT, it was the mainframe. And I was working in the south, and there were two people who worked in the mainframe somewhere up north, and you never saw then, you just heard them, and everything had to go through them. And everything had to be done the way they did. There were pros and cons to that, but the pro was everything was done the same way. You didn't have integration issues. So, that's the way things started when it was just one technology stack.

And then, Windows came, and microcomputers came and then everything got distributed and all of these different operating systems, all these different programs and silos built. And over time, IT spent less time servicing the customer and more time making things talk together and work together. And hence the boom of API integration probably a couple of decades ago. Param, you probably know better than me when this became the hottest topic. When did this start emerging?

Param Kahlon:
Yeah, so really great question. And I like that long thorough history on APIs. API has been around a very long time, and we've seen it go from RPC to SOAP to REST to AsyncAPIs and GraphQL and whatnot. But integration has been around a very long time as well. In fact, in the mainframe era a lot of the integration used to happen by moving files around in a batch-based integration. But I would say somewhere in the late 2000s people started realizing that if APIs exist to provide exchange of data between systems, you can build integration platforms that relied on those APIs to provide the real-time exchange of information and business process across those systems.

So, MuleSoft was the first one that came to market and said, "Well, we believe in this API-led architecture to drive both integration but beyond that a composable architecture that can be used to drive digital transformation." And that composable architecture was used – and it's still used by our customers – not just to do integration but also drive innovation at the company. The ability for a company to say, "We want to do digital transformation, we want to change everything about the experience we deliver to our customers, and by the way, we want to standardize the 300-plus systems that we have into one system that manages one version of the truth. And we want to do that independently of each other."

Well, APIs give you the ability to create that multi-layered architecture where you can innovate at a pace that you want, you can deliver an experience to the customers and not have to worry about what the underlying architecture is. And as that evolves, experience can remain the same because experience is tied to the API and you can replace APIs as the platform underneath it goes through a major transformation. So, it's really been a lot of great value for customers that have driven some massive projects for integration and also around transformation.

Mike Kavis:
Yeah. And then, a couple other things happened along the way—this thing called mobile, and this thing called cloud. And with the birth of these two things, all of a sudden, this digital transformation came, which is not only do we want to throw APIs and everything, but we want to create a common experience to people where they are anytime in real time. So, here we are with RPG systems and C-Unix systems and old systems from wherever and brand-new systems, but they all had data and we had to hide all that from the customer. So, this whole digital concept, which is high-flying right now, especially with the emergence of AI, is how can we just create all this seamlessly? And some companies are able to do that really well. Their customers can have a great experience even though under the covers there's a lot of old legacy, crazy stuff happening.

So, that's the backdrop here, is we've spent decades trying to perfect this art, the API strategy, and it's getting harder. Now we've got cloud and now with the emergence of AI there's a lot more private cloud. When cloud first started it was almost all private and a little public, then a huge shift to public, and now we're kind of balancing back between the two. So, not only do you have data in a lot of systems but now you have them in a lot of clouds and a lot of data centers.

So, one of the statistics I saw, and I'm going to shoot this one over to you, Kurt, is one of the largest risks people pointed out for success factors for their AI projects, 95 percent claim integration issues are the number one issue impeding AI adoption. So, what did you guys – I'll go to you, Kurt – what did you discover through those interviews with all these clients on why that is?

Kurt Anderson:
Mike, it's a really interesting fact: 95 percent say integration issues are impeding AI adoption. But I guarantee that 100 percent of those IT leaders and stakeholders are getting asked by their business and by their leadership, "What's your API strategy and how are you unlocking value through this technology that's moving at an exponential pace?"

To get insights from AI is to get data to the AI engine itself, and that speaks to integration. In that same trend report, Mike, we saw the average number of applications is 991 in the large enterprise. So, the odds are the data that you need is in multiple systems, and you need to get it into one place that it can be acted on, which pushes on your API strategy and your integration strategy to unlock that type of capability. So, before you can get that value to the customer or to your front office or to your operations teams, you've got to be able to get that data into a single location and unlock it with whatever your LLM of choice is. And that's where having a strong foundational integration and API strategy, to me, that number of 95 percent really resonates, that you have to attack both to get the outcomes that you're looking for on the AI side of the coin.

Mike Kavis:
Yeah, and 75 percent of the 95 percent, called out just connecting to the data insights. So, we're trying to create these great digital experiences but it's hard. The data is all over the place: many data centers, many clouds. It's hard to get to it. So, when we talk about adoption of AI most of the conversation has been around ethics and security and governance, but this was the first one that kind of opened my eyes that this is the same old problem we've had with the emergence of any new tech. Through the past 20 years, every time a new shiny object comes in it still needs data. So, what's old is new here. What do you think, Param?

Param Kahlon:
I completely agree. I mean, I think the number of applications, as we just spoke about, 991 different applications that manage the data. And if data is your key enabler of driving AI in the enterprise, you can't pull that data together to make sure you can leverage it to drive the right insights and then have the ability to act on those insights, then your AI strategy is really not going to deliver the return that you've promised the business. So, that's why having an architecture and approach, like Kurt mentioned, that lays the foundation for integration through an API-led architecture, leverages that API foundation to drive transformation in the enterprise and then can leverage the same API architecture to not only bring the data together, but also being able to make sure that you can act upon the predictions that you're getting from your AI , your grid AI algorithm—because the predictions aren't really worth a lot of value if

you're not able to act on them, if you're not able to take that suggested approach of calling on a customer right now. If you don't have the ability to act on that prediction, it's not going to give the value. So, the ability to act on that is really important, as well.

And there's one other nuance I'll add in this, Mike. The number one hreat that organizations face today, both in terms of reputation and also financial, is around cybersecurity. But one of the things that is stark about cybersecurity is that in the early days of browser and dot-com your attack vector was the browser. Now your attack vector is the API. So, it's not just having those APIs but also being able to know that you do have those APIs, being able to know how you're running those APIs, what is their rate limit on those APIs, how many times those are being called, which API addresses are being called upon? To be able to secure those APIs is also extremely important. And to be able to have a holistic API-centered architecture where you're looking at everything from the life cycle of API from creating that API to leveraging it across applications, driving reuse, and then managing the security aspects of that API are also extremely important for companies to get the full value out of this.

Mike Kavis:
Now, one of the other interesting stats here is companies are seeing surge of 39 percent more demand for projects in 2024 over previous years. And a lot of companies are turning to AI to solve that. But as this report shows, if you don't solve these integration issues, you can't unlock the data, AI is not going to save you there. So, again, the front-loaded technology, the AIs, the clouds of the world can really do some incredible things, accelerate delivery, accelerate value, but you've got to get to the data.

There's a great quote in this report that says, "Virtually every company runs on APIs, but few have turned them into a strategic lever." And that's an important point. So, what are the characteristics of the companies that are successful in this? What's the makeup of a company and how do they successfully approach API strategies? I'll go to Kurt first.

Kurt Anderson:
Absolutely. What an interesting way to think about APIs and unlocking those, that value. Demand is up. Pressure on the organization to deliver. The upside is tremendous. But what are the characteristics that get into place to set you up for this? In the clients that I serve I really like the idea of thinking about the API as a product. It starts to frame not just the cost side of the value delivered but also the revenue outside of the value delivered. You talked about the entry point not only being mobile or web but being the API. The revenue monetization opportunity is tremendous. If you look at the holistic business case for launching a new ecosystem integration or enabling a custom or a critical business process flow across the channels that are inside the firm, you'll start to see the investment make sense from an ROI perspective. And now you get a coalition between business ops and technology supporting and driving the governance, the quality, and the roadmap of those APIs.

To your point earlier, Param, when you have just the technology organization pushing and advocating for it, it turns into a cost center. It turns into a liability. So, if we think about APIs as products, we can flip that on its head and get a revenue-producing opportunity and get everybody in the organization on board with the roadmap.

Mike Kavis:
So, Param, a question for you is within the companies that having success here, who's driving the strategy? Is it C-suite level? Is it architects? Is it business leaders in the companies where you've seen success, what's the characteristics of the types of people that are understanding that we need to focus on this?

Param Kahlon:
That is such a great question, Mike, because therein lies the heart of – like your earlier question, who is successful with this approach and who isn't? And really, the companies that are successful are the ones that are bringing together – I'll call it these fusion teams. People that have a great understanding of technology, that have looked into the architecture, the detail, and truly understand the value of a resilient, high-scale approach to driving large throughput transaction through a system, and combining them with people that truly understand what is the vision of the business? Where are we going to take this? We really need to be able to transform our experiences that we give our customers. We need to collaborate across the value chain. And we want this to happen seamlessly without having to put a lot of people in the loop because this needs to happen at the speed of bits and bytes moving through a data pipe.

And when you articulate your value and what you want to achieve from technology and the technology folks can go ahead and say, "Well, I've got the right architecture that can go ahead and create and execute on that vision," that's where you see success. So, it's not just whether it's the business leaders driving it or it's the IT driving it. The best teams are the ones that we have the combination of both business and IT working together and saying, "Well, we understand what needs to be solved and we're going to do our best to get there."

Mike Kavis:
Yeah. I'm scrolling through the report right now and a couple other findings on some of the challenges. One was talking a lot about security and governance. You're pulling from all these systems built in different years with different security frameworks. Some may not even have any because they're so old. And then, the skill gap one. There's a lot of different skills. So, how is the API solution helping with these two problems?

Param Kahlon:
One thing that we're seeing our customers do is leverage those APIs to drive reusable architecture in the enterprise, and then do it in a way that you're using a code gen approach that is supported by AI. So instead of coding everything yourself, you want to say that "I've got a catalog of APIs, and I want to expose the catalog of APIs to my large language model to be able to create the outcome that I want to be able to create." And what that approach gives you is that the skill set of being able to code all those APIs together can be achieved, of course, but sometimes it's hard to find the skill set. It takes a little bit longer time. But when you apply natural language capabilities to make someone who's doing it way more productive, you're able to hit some of that gap and make people more productive. So, that's one value that we're seeing and people saying, "Well, once we build the underlying investments and components, APIs, we're now exposing them to many, many more developers who are able to leverage them. They could be application developers or integration developers. They're able to leverage them in the output that they're creating more effectively by leveraging a large language model."

Mike Kavis:
Great. Anything to add to that, Kurt?

Kurt Anderson:
I think it's spot on, Param. And you said a term earlier which really resonated with me, which is "composable architecture." And when we talk about success and what are the characteristics, where are driving toward, the role of a modern IT leader now, I feel, can be measured by what's your time to market for the next thing that comes down the pipeline? We can't predict what the next greatest SaaS tool is going to be that the firm needs. And AI is a great example of this, that two years ago we didn't have this on our roadmap as something that was going to be so transformative. But rather than be ready for a specific piece coming, to be ready to integrate whatever the next thing is by having that composable architecture is really the defining characteristic of what we want as architects.

Mike Kavis:
Yeah, that's a great point. For those who started on their API journey, they already abstracted a lot of the legacy architectures and already have API access to value, I'll say, whether it's data or systems or whatever. So, yeah, that's one less thing to build when the next thing comes in. If you've already laid that foundation, then it's just figuring out how to implement the next new shiny object.

So, last topic before we wrap it up. The last part of this report I'm scrolling through here is a heavy focus on automation. And one of the key drivers for automation is that there's a lot of skill workers in the business now and there's a lot of no code/low code platforms. There's a lot of tools that allow them to do "development," which means build nice rich experiences on top of platforms. So, automation is a key. And through my career that's been a problem that even though the next tool comes in to help people do that, they still have to create a ticket and get somebody to do something.

So, automation was another key thing that kept showing up in this report here. RPA seems to be driving even more in demand. So, in 2021, 13 percent of organizations were flagging RPA as things they were making investment on, which is still a pretty significant number, but now it's 31 percent. So, how is RPA driving automation for our customers, both internal and external, and what changes, if any, has AI done to RPA? I mean, RPA has already been a bot out there figuring stuff out on the fly. How does AI empower it even more? I'll go to Param first.

Param Kahlon:
Yeah. So, great question. RPA is very useful for a business user that knows how to use the application and knows what the UI is and can do the task that needs to be done but it's a very predictable pattern of work. I am taking stuff from one system and I'm moving it to another system. They both have their own UI. There is no API because these systems were coded a long, long, long time ago. People didn't believe in APIs back then. And if those exist, we don't know if they work the same way as the UI works, so we're just going to have to do it at the UI level. Well, what you can train an RPA bot to do is basically execute that exact same sequence of things that humans are doing. You can say, "This is what you do. You take information from here on this screen, you fire up this app, and you move it to this app." And you create a map of how you're moving that data, and the robot will do exactly what a human does. So, it's a good alternative to automate all of that.

And your next question was how does AI change all of that. What AI does is AI gives that robot that was only doing a predictable pattern of copying data from one screen to another a little bit more intelligence. And that intelligence will keep growing over time. So, you can say that, "Instead of just copying the exact same data the exact same day, well, what if I see something different every once in a while? What if the screen changes a little bit as it's rendered on a smaller browser or the layout changes because I changed the form factor or my resolution on the computer changed?" A human brain is able to understand that change quickly and adapt to it, or understand how if my screen has changed a little bit because an update happened and I recognize this change and I can adapt to it, RPA will eventually start to able to react and adapt to things that are changing. So, that's one thing AI will introduce in the world of RPA.

The second thing it will introduce is that the cost of building a bot to do that copying of data from one system to another or whatever the task might be will become less and less costly. Just like we're talking about how we can consume API through large language models, you'll be able to create bots using large language models that wouldn't need you to script things in a certain format and certain things that are vulnerable to breaking. AI could make that easier as well. So, AI can definitely add a ton of value in the world of RPA as well.

Mike Kavis:
Yeah, I agree with that. Playing around with this stuff over the past couple of years, I was able to build a few simple but not enterprise-scale bots. I had never created a bot in my life, didn't know where to start, and then I used LLMs and asked a few questions and, boom, there's a code. So, yeah, it's pretty cool what we can do with this stuff now.

Any final thoughts? I'll go over to Kurt. Any final thoughts? You had this great report out here. What's your final thoughts to any architect out there who's trying to deal with 39 percent more work and embracing new technology at the same time while keeping the lights on? What's the message out of this report for those people?

Kurt Anderson:
The only way to attack that more work with the same resources is to bend the curve. And we talked about a lot of the enablers here today, Param and Mike. That reusability concept, to me, is the unlock that's going to get to how you solve that problem. The next project and the second project after that and the third project after that have to take advantage of these capabilities. They have to reuse bigger and better APIs that can do more work in a safe, secure, and scalable way. And they have to be ready to plug into whatever that next project is so that when that additional workload comes it doesn't turn around with, "Well, we can get to that two years from now," or "I can do that if you can give me twice as many people as I have today." By building for reuse, by taking advantage of the acceleration that we see at design time and at code time from these AI-driven flows in MuleSoft and in tools in the market, I think that's

the way that you start to not say no to your business stakeholder but say "Yes, I can do that because I have the foundational strategy, tools, and platforms in place to make it happen."

Mike Kavis:
Yeah, great response. That's a great way to wrap this up. AI and APIs. Those two are huge accelerators that are going to take us into the next few years. So, I hope everyone enjoyed this podcast. Make sure you like us, leave a review, and subscribe. You can also check out our past episodes wherever you listen to your favorite podcasts. You can always find me on X, MadGreek65, or reach out to me directly at MKavis@Deloitte.com. Thanks for listening to the On Cloud podcast, and we'll catch you the next time.

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