



## The Deloitte On Cloud Podcast

**David Linthicum, Managing Director, Chief Cloud Strategy Officer, Deloitte Consulting LLP**

**Title:** New approaches to app and tech integration can boost digital transformation

**Description:** True digital transformation requires a hyper-connected ecosystem where information flows freely between those who need it and those who provide it. However, that level of connectivity has often proven elusive. In this episode, David Linthicum talks with MuleSoft's Matt McLarty and Deloitte's Kurt Anderson about how new thinking on application and technology integration holds promise to help organizations achieve their connectivity goals and enable faster digital transformation.

**Duration:** 00:27:11

**David Linthicum:**

Hey, guys. Welcome back to the On Cloud Podcast. Today on the show we are joined by Matt McLarty, Global Field CTO and VP of Digital Transformation Office at MuleSoft, and Kurt Anderson, Deloitte-MuleSoft alliance leader. Matt and Kurt, welcome to the show.

**Matt McLarty:**

Thanks for having us.

**Kurt Anderson:**

Excited to be here.

**David Linthicum:**

So, Matt, tell us a little bit, what you do at MuleSoft, and then, Kurt, I would love to know what you do at Deloitte, because it's always a bit of a private detective exercise. You get all these people, all these different roles, and you really can't know everybody, and I love using the podcast as a platform for me to get to know my own colleagues. So, Matt, you go first.

**Matt McLarty:**

Sure, yeah, and you used both my titles. I like to be a man of many titles. So, I'm Global Field CTO, MuleSoft, meaning I'm meeting with customers, meeting with organizations around the world. I joined MuleSoft in 2019, really to focus on API strategy and helping organizations leverage APIs in whatever strategic means needed for business purposes, for organizational change, for technological innovation, and just recently took on the whole Global Field CTO role.

We've got a lot of exciting stuff happening in MuleSoft. I'm not sure if everyone's aware we acquired a company called Servicetrace last year, which is in the robotic process automation business. We've launched low-code integration tooling called Composer, which really complements our industry-leading integration platform and API platform. We've got a whole bunch of new products being launched.

So, it's just—I think what I was finding is working in the API strategy space, like that API strategy as a term can mean anything to any company. There's lots of different flavors of it, and really everything that—all the best practices and recommendations I was giving, we really had product and platform capabilities behind that. And, so, it's been really exciting to move into the Global Field CTO role.

I've been in the API and integration space longer than I care to mention. Before joining MuleSoft, I led a global group called the API Academy, which was really thought leading around API strategy, design, and architecture. Prior to that, I'd worked at IBM in the integration space, and before that I was working at a bank here in Canada for a number of years. So, it's just exciting to watch the whole industry evolve and it's really exciting to be at MuleSoft when we're expanding into these other areas that really help organizations digitally transform.

**David Linthicum:**

Yeah, absolutely. And my background is integration, having written the book on enterprise application integration, actually back in '95, which kicked off this kind of first-generation integration technology. And that led to the second generation in integration technology, and I actually was CTO of a few of those companies as well, and founder of one. And now we're into the third generation, which is really where MuleSoft is, the ability to kind of look at integration as something that can be easy. Low code is a great—it makes me happy when I hear about that based on the amount of money and time that goes into making this integration stuff work.

So, Kurt, tell us about your role at Deloitte and how you got involved with MuleSoft.

**Kurt Anderson:**

Absolutely. Well, first and foremost, I'm a managing director here in our cloud practice at Deloitte. I sit in our API and Integration services offering and I focus on technology-led transformations with business and technology stakeholders, helping them transform against their digital agenda, execute against priority business programs, and most recently, over the last five or six years, leaning more heavily into the API and integration space. I grew up doing these types of transformation programs at Deloitte, and it's been really exciting—you talked about the generation one, versus generation two versus, generation three—seeing how API strategy and API enablement has really changed the way that our clients are thinking about running technology programs and supporting their businesses to get to their ultimate outcomes.

**David Linthicum:**

So, Matt, kind of selfish on my part—I always like to look back in the previous year and really kind of get the thought leaders' interpretation on what occurred. It's funny how everybody looks differently at the different events that occurred in the last year, 2021. What would you say were the trends that you're seeing around integration and API management in 2021? What was starting to emerge at MuleSoft and also the industry in general?

**Matt McLarty:**

Well, it was just another normal year, wasn't it? *[Laughter]* I guess this is part of the new normal of the roaring '20s that we've got here. No. What's interesting thinking about trends and David, I've probably been in the industry almost as long as you have and followed the integration space, and as you know the problems never change, right, but the technologies always do. I think what was really interesting is just a lot of the stuff that MuleSoft has been talking about around new operating models and convergence of business and IT the whole pandemic was really a forcing function for hurry up on the digital transformation. And, of course, you can't do anything to transform digitally without integration, and certainly APIs, as building blocks in the transformation.

So, I think we saw a lot of the predictions and kind of practice recommendations we had coming to fruition. The big thing around convergence of, like, how prominent I think—not necessarily integration. Like, if you go into a CEO office, they don't typically say APIs are—or integration is the problem; APIs are the solution. But all those areas that are enabled by integration were really right in the top of mind for business leaders, not just IT leaders. So, the need to be more available online for services in a pandemic area when you have to be digital first with customers, providing more personalized customer experiences, optimizing the supply chain, and getting more introspection into operational delivery, and of course automation, automation, automation. So, all those things were just really driving the demand for integration solutions up and putting them more prominently in the business mind.

And, so, we already talked a little bit about low code, and that's certainly a buzz term. There's low code, no code even—you hear about that a lot. But really what that is about, is this problem that we've had for a long time. I wrote an article in *Tech Crunch* like in 2015. At that time there was this push for, "Hey, we need to get more software engineers. We need to make it a more accessible field," kind of talking about that. And that—every year that's just more of a pressure point, where the number of developers that are out there to do stuff is just vastly outweighed by the demand.

And, so, we're seeing not only a shortage of supply of developers, but the developers that are in there are either getting burned out by how much work they have to do, or they're getting recruited heavily by all the different opportunities that are around, and it's causing this big churn in the industry. And, so, making digital solution delivery more accessible is something that—that's really the aim of low code, getting more cooks in the kitchen. And it's definitely something that we're—we're seeing more adoption of the low code solutions, but we're definitely seeing the pain point that it helps to solve.

In terms of other trends, the API space is fun to watch because if you recall, the big—really the rise of REST as an architecture, post-APIs, was done in contrast to SOAP. I remember at the time, like, SOAP is bad, SOAP's heavy, use REST, and now we're seeing the opposite, where there's these new protocols coming up like GraphQL and gRPC and event-driven Kafka communication where people are saying, "Oh REST is no good. We need to use these new things."

So, we're kind of seeing the rise of that but also sort of the rise and fall of things a little bit as people get more familiar with, like, let's say GraphQL. On an enterprise scale, they start to confront some of the things like security and change management that—REST is a little more well-defined, and that's basically—there's a lot around those new protocols and technologies and paradigms around the container world, and how do we resolve our sort of legacy integration with these platforms.

I think that all that kind of comes together, because just in general organizations are trying to move really quickly at the pace of change and still grappling with all its complexity on the technology side. So, that's definitely the areas that we like to help organizations out, sort through the chaos, get to the business outcomes and leverage the sort of—the best technology, the best tool at the right time.

**David Linthicum:**

Yeah, you said something very profound. I remember back in—thinking about how integration needs to evolve, and certainly as we morphed into enterprise integration, to B2B integration. Then the internet came up, the ability to deliver integration services over the open web. Really, kind of the notion was to get to this event-driven, data-driven enterprise and economy where everybody is going to be aware of everything else at any given moment to adjust their processing and automation to that given level, whether it could be an inventory depletion algorithm in terms of the supply chain, your ability to integrate with your various suppliers and manufacturers, and really kind of understand when something can be built and something can be delivered.

And here we are, 2022, and, in essence, we're wrestling around with the same problems. And when people ask me why we're wrestling with the same problems, I say it's five factorials more complex than it was in the '90s. And the reality is that it's very difficult to integrate these various systems; however, we've got to start making the move to make these things work and to get the supply chains integrated. And, so, not necessarily solving all supply chain issues, but we know how bad the issues are going to be before it actually occurs. It seems like we're not predicting these things as well as we should.

So, Kurt, I'm going to go to you. I mean, how are we approaching this at Deloitte? And what are some of the common problems you're seeing from clients, certainly with the application of MuleSoft and other technologies, and what can we do better?

**Kurt Anderson:**

Yeah, I really love some of the themes that we've heard so far. 2021, there was a big theme around this gap in convergence between the need to run the business versus the need to innovate, and how the pandemic really brought to bear where organizations there and which side of the dividing line they're on. So, being able to respond to new channel pressures, to be able to meet business needs to adapt to a remote workplace, but also just keep the lights on from an IT and IT operations perspective.

**David Linthicum:**

Yeah, absolutely.

**Kurt Anderson:**

Well, yes. As we look at some of the benchmarking that Deloitte and MuleSoft has done in the market, we're seeing upwards of 70 percent of your time as an IT professional being spent keeping the lights on, and yet we're hearing the emergence of digital and connected experiences being demanded by the business. There's significant complexity coming into the ecosystem around new products to integrate new cloud-enabled or SaaS-enabled applications that are coming into the application portfolio faster than the IT organization can absorb it and integrate it.

And I think it really puts a light on the need for your API strategy and your overall integration approach, and that's why as we look at what's happening now, out in the field with our clients, having a quality API strategy and relying on next-generation tools, and MuleSoft is certainly a leader in this space, to help simplify that technology landscape and get the right gearing ratio between innovation and new investment, versus keeping the lights on and retiring tech debt, really driving the conversation that we're seeing on the ground.

**David Linthicum:**

Yeah, absolutely. And I think when we're getting to where this is going, we're looking to abstract the complexity and leverage automation in more strategic ways to get these things sorted and communicating one to another. I mean, we're—the complexity is not going to stop. We're going to build multiclouds on differing platforms. Heterogeneity is going to expand. How we're leveraging data in the data different platforms is going to expand. Different siloed processes—IOT, edge-based computing it's exploding. And there's really kind of nothing we can do about that because we have to build this innovation to kind of take the business systems to the next level. But the ability to apply integration on top of it is something we've got to figure out before those things are in place, or else they're just not going to have the value that we think they're going to have.

So, changing directions a bit, and, Matt, I'm going to go to you, put your future hat on. How is technology likely to evolve in 2022 and 2023 related to integration and API, your world? And how can enterprises best align themselves to be prepared for it?

**Matt McLarty:**

Yeah, I definitely have thoughts to share there. If it's okay, I just wanted to pick up on this—because I think it's related—this solving the same old problems again issue, because I have a little bit of a theory. Maybe it's a bit controversial because I'll get myself in trouble with developers, but—and it goes back to what Kurt was saying about the balancing the innovation and keeping the lights on.

I think that definitely the demand and just the complexity of dealing with the current technology landscape is problematic, and it's just something you have to deal with. I think, though, there's also something in the DNA of developers and, like, hardcore software engineers, that they like solving those old problems, like, "How can we hyperscale a cloud just slightly better than the way it's done now," or "How do we provide super-dynamic container instantiation or multicloud?"—like, those really deep technical problems, I think there's a bit of an interest drive there that leads to that.

And, so, that's why I get kind of excited about the low code notion of bringing more people, more creative types, more business-minded people into the picture, because maybe then just having more interest around solving some of the business problems—which might not be as exciting to somebody who's, like, geeking out on Kubernetes, right—is something that I think will help us get out of this problem where we're spending so much time keeping the lights on.

But in terms of looking ahead, I think that I'm just excited about the fact that the level—the level of recognition now that's happening in organizations that—it was actually—I can't believe it, but it was ten years ago that Marc Andreessen wrote that "Software is Eating the World" essay published in *The Wall Street Journal*, which was really saying, "Hey, look out, because if you're in any industry, and you're not taking software delivery seriously as one of your core competencies, then you're going to be disrupted, because all these software players are popping up," which ten years gone by certainly couldn't be more true.

So I think the recognition that technology and software-based capabilities are at the center of every business now, I think that will help drive and get us out of those weeds a little bit of always mucking around with some of the infrastructure problems that have been solved and getting more focused on the business outcomes. So, that's why I think this convergence we're seeing with, like, all the automation, hyper-automation, technologies, advances there which are very focused on solving business problems, that's exciting to me, that that's a big focus area for companies and they're solving those business problems quickly.

Where we're going with MuleSoft is hoping to bring the best of both worlds there, where one of the issues that we've seen with sort of business-oriented tooling and automation tooling in the past is you might solve—automate a business process, solve that pain point now, but then you're actually piling onto the technical debt, right? And as we know, as much as we like to use these biological analogies, like ecosystem and other things, when we talk about technology, like, technology is not biodegradable. It just accumulates debt.

So, what we're hoping to do is helping companies solve those immediate business problems through automation tooling, but also have that plugged into our platform to give the visibility to the IT team who is keeping the lights on, the governance and control to manage that towards a more evolvable approach. And when we talk about something we've been talking about a long time, this notion of a composable enterprise, where you've got your core capabilities manages products and—helping those automations being a starting point towards composability, the same way that building APIs in front of your applications becomes a starting point for composability. So, I think that continued business focus is a big trend.

Another area that I see a big-time convergence happening is we've had this explosion of big data technologies going on since this whole data pipeline and analytics space that's exploded with technology. But at the same time, we've kind of evolved in the application, user-facing application operational data space with microservices and decentralization.

So, we've had this centralization movement happening in the data and analytics space and this decentralization movement happening in the application space. And I think, now, we're at the point where bringing those worlds together, especially in terms of injecting the insights out of the data analytics world into the operational world, where I think there's—AI is really driving that convergence. I think that's a really exciting space to watch, and I think that—you may have heard of, like, the data mesh concept coming out of Thoughtworks, and there's a lot of companies I'm talking to now that are really recognizing that we can't have a siloed data and analytics world and an applications world. We need to bring those worlds together. So, I think that's something—I mean, data integration's been around for a long time, but this big data and analytics into the operational world I think is a really exciting converging space to be in.

**David Linthicum:**

Yeah, I think it's also the ability to leverage virtualized data. That gets to the data mesh concept. But it's been around for a while but it's never really worked well. And suddenly we have data mesh technology, data virtualization technology, data integration, metadata management technology, that will allow you to leave physically where it exists and then put abstractions on top of it based on the way you want to consume the data. So, the idea that we're going to either replicate the data to another database and change the structure to accommodate the needs of another application and we end up doing that 20, 30 times, we have different versions of the same data and therefore no single source of truth. But getting into the habit of leaving it where it physically exists and not enduring the expense and risk of migrating and moving it to different systems, inclusive of the cloud, I think is a much healthier way to grow moving forward.

**Matt McLarty:**

Completely—and if I can just add to that we've talked about the idea of an application network in MuleSoft for a long time as well, in terms of exactly that, virtualizing your business capabilities through APIs in a way that makes it composable. And I think that that mental shift from thinking about data as something physical that lives somewhere, stored centrally, moving to the network concept, so the idea of a data network—I think that's exactly what you're pointing out. And I think that mental shift of, "Oh, okay, as long as we can have access, kind of unified access to it, it doesn't really matter where it lives." So, I'm totally onboard with that.

**David Linthicum:**

These are powerful concepts I introduce all the time to clients. And I think people may—it's been around for a long time as a concept, but it's never worked as well as it does today, and the ability to have high-speed networking, high-speed IO, and certainly information systems and resources on demand, such as we do with cloud-based computing, is going to make it possible.

So, Kurt, I'm going to go to you with the last question. So, out there in the world of data integration, API management, and leveraging MuleSoft as a weapon, how can enterprises prepare themselves for what Matt just talked about, the ability to kind of move into the next generation of technology? And

where should they be applying their efforts today? Where should they be obtaining skills? What do you think is going to be important from your point of view?

**Kurt Anderson:**

Absolutely. I think of that idea from two lenses, one from an architecture perspective and then one from a talent perspective. And I think they need to go hand in hand. We talked a ton in the last couple of minutes about some trends that are driving what needs to happen in the architecture. We talked about composable enterprise. We talked about some of the needs for data and the role of ecosystem partners and a strong interest from the business to get involved and participate in an ecosystem play, composing products—not just technology, but products to drive new value to the client.

Architecturally, the IT organization needs to be ready for that and positioned to accept that architecture and accept that platform and grow, and I think it's two parts. You've got to have a foundational layer in place from both an API strategy technology architecture and then a core services that are enabled. As more and more organizations of all sizes are moving into the API era, there's a lot of midsize and small organizations that are still getting that foundational layer in place, and I think that's a major theme that's happening and has yet to play out in the next two or three years, being ready to accept that idea for the business and to jump on it.

So, once you have that architecture and layer in place, it turns into a talent play. And this is where a lot of conversation is happening with my clients in the market today. We need a very specific talent set, but look at what we just talked about, all the technologies that need to be supported, and not just by the cutting-edge players who are interested in adopting early. Mainstream businesses, small, medium, and large, all have to take on this now diverse set of skillsets. How does a leader in a technology organization accurately select which technologies to invest in and how to put your people and your skills against those technologies and build and develop? And understanding which platforms are providing value, which platforms bring capabilities out of the box that lessen your need for labor and your need for investing in a very wide toolkit, I think that's a modern and practical challenge that we're seeing happen.

And in the case of MuleSoft, it's a great tradeoff where you get the opportunity to do a lot in a single platform and get a lot out of the platform for the amount of time that you need to put into it, so maximum business benefit and reuse value where the platform does a lot of the work. So, aligning your sourcing and talent strategy with what you've got from a platform perspective, enabling and being ready for that business transformation, I think that's what's going to position organizations small and large to be successful in the next two years.

**Matt McLarty:**

And if I can add to that, like, I think you're bang on, and it's not an easy problem to solve in terms of lining up the skills. And I think—but I think it's starting with the mentality of taking a holistic approach and knowing that introducing technology isn't just introducing technology. It's all the organizational considerations, process considerations—it's really important.

And when I've been working with customers talking digital transformation in general, I've been using this historical analogy about how electricity was invented and harnessed and actually generally available around 1882. So, you would think that, okay, electricity's out; every company could just jump onboard and use it. But it actually took, like, 30 years for companies to move from steam power, which was dominant at the time, to electrical power because they had to change not only how they drew power but how they would design their factories, how they would staff their factories. Like, people would have jobs all around being the steam engine for the company.

And it really—we're 30 years now since I think the first web server went online, which really is a landmark event. Companies are still going through that. They need to not only think about, "Oh, there's a new technology; let's plug it in," but how do they actually restructure for this digital economy? And I think that, to me, having been working in APIs and integration for a while, the same concepts around composability that apply to the software architecture need to apply to the organization, and the same sort of realignment and restructuring. So, I think for leaders out there it is a tough problem to solve, but definitely taking the holistic consideration of people, process, technology upfront is really important, even for introducing new tech.

**David Linthicum:**

Absolutely. So, Matt, where can we find out more about your company and yourself on the web?

**Matt McLarty:**

Well, we're everywhere, I would say. I mean, MuleSoft.com, we've got—if you go there, you get to everything, all the information on the products, all the information on methodologies. We have a great blog that's got contributions from tons of experts in MuleSoft and beyond. We have lots of guest posts there as well. I cohost a podcast listed on the blog there as well, and so a ton of resources there. But every social channel you'll find MuleSoft, and we have a phenomenal partner network as well, and we tremendously appreciate the partnership of Deloitte and really, really happy to have this opportunity to talk.

**David Linthicum:**

Absolutely. Kurt, same question, where can we find more about you and the practice on the web?

**Kurt Anderson:**

Absolutely. Obviously start at Deloitte.com and take a look at some of our point of views a ton of great ideas in the cloud space and the API integration space across our suite of podcasts and blogs as well. And, of course, if you've got an interesting technology challenge or you want to know more about what we have to offer from an API perspective, we're happy to talk about it directly with you.

**David Linthicum:**

Yeah, please look it up. And it has to be a partnership between the technology, MuleSoft, and the implementers folks like Deloitte, to make this stuff work. You need to not just throw tools at it but a lot of smart people, and you can't just throw smart people at it without leveraging the right tools. So, think about that moving forward in looking at integration and API management.

So, if you enjoyed this podcast, make sure to like us, rate us, and subscribe You can also check out our past episodes including those hosted my good friend, Mike Kavis. Find out more about Deloitte Cloud Podcast at [DeloitteCloudPodcast.com](http://DeloitteCloudPodcast.com), all one word. And if you'd like to contact me directly, you can e-mail me at [DLinthicum@Deloitte.com](mailto:DLinthicum@Deloitte.com), that's L-I-N-T-H-I-C-U-M. So, until next time, best of luck in your cloud journey. You guys stay safe. Stay healthy.

**Operator:**

This podcast is produced by Deloitte. The views and opinions expressed by podcast speakers and guests are solely their own and do not reflect the opinions of Deloitte. This podcast provides general information only and is not intended to constitute advice or services of any kind. For additional information about Deloitte, go to [Deloitte.com/about](https://www.deloitte.com/about).

Visit the On Cloud library  
[www.deloitte.com/us/cloud-podcast](https://www.deloitte.com/us/cloud-podcast)

**About Deloitte**  
-----

As used in this podcast, "Deloitte" means Deloitte Consulting LLP, a subsidiary of Deloitte LLP. Please see [www.deloitte.com/us/about](https://www.deloitte.com/us/about) for a detailed description of our legal structure. Certain services may not be available to attest clients under the rules and regulations of public accounting.

Please see [www.deloitte.com/about](https://www.deloitte.com/about) to learn more about our global network of member firms. Copyright © 2021 Deloitte Development LLC. All rights reserved.