



The Deloitte On Cloud Podcast

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

Title: Elevance Health: What a successful cloud journey looks like

Description: The journey to cloud can be fraught with pitfalls, but there are many true success stories out there. In this episode, David Linthicum talks with Elevance Health's, CTO Amish Patel about his organization's cloud journey—and its ongoing success, despite many challenges along the way. For Amish, success is tied to reducing multi-cloud complexity with standardization, automation, orchestration, and a unified view of capabilities—and by creating a supportive, developer-friendly cloud culture.

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David Linthicum:

Welcome back to the On Cloud podcast. Today on the show I am joined by Amish Patel. As Chief Technology Officer at Elevance Health, Global CIO Organization, Amish is responsible for advancing the cloud journey technology platforms, operations, and exponential engineering organization to create

the next generation of innovative digital capabilities. Wow, that's pretty impressive, Amish. So, tell us what you do during the day. What's a day in the life of the CTO of Elevance Health?

Amish Patel:

Well, David, first of all thank you for having me. As you mentioned, I'm the Chief Technology Officer at Elevance Health. I'm responsible for the platform and cloud enablement organization. So, essentially, my team and I co-own the cloud strategy, engineering, and operations for the entire organization. In this role, I'm responsible for advancing our cloud journey. I own all the technology platforms, which includes API enablement, operations, and exponential engineering organizations to really create the next generation of innovative digital capabilities. And I tell this to my organization that my team—and I've also said this to the board—that we are really the engine that is powering this car we call Elevance Health.

I strongly believe that health care is the next hub for innovation, and with the rise of technology, our members are truly expecting a seamless and an integrated experience for something that is deeply, deeply personal, which is their health. So, personalization of health care using technology is where the pack is going. My team consists of a globally diverse workforce that is aligned on the mission of simplifying health care and really improving our digital experience. My role, as you mentioned, requires me to continuously understand the business opportunities, the friction we have in our cloud journey. I spend considerable time really simplifying our tech journey, building an engineering culture, and [thinking about] how we can foundationally change the way we lead and manage technology.

David Linthicum:

That's great. And it's one of the things that attracts me to the role of CTO, because there has to be some sort of a translator, some sort of a leader that looks at where the technology is going. There's lots of opportunities to improve the use of technology as a force multiplier. Certainly, health care is a huge area. I see that over and over again in study after study as being the industry that can most benefit from new technology, cloud computing included, but certainly edge computing and AI technology, things like that. But it's one thing to know it's there, and it's another thing entirely to figure out how your particular organization can leverage the technology effectively.

So, the role of the CTO—at least the way I see it, and I'd love to get your thoughts on this as well—is the ability to kind of translate what the business requirements are, in other words, where the business is going from a vision and a standpoint and how they're going to generate income as well as generate value as well as solve some of the more important problems. Health care is going to be the big one out there. And then applying technology in the right way, understanding that you're going to have a limited amount of resources and you have to kind of organize them and prioritize them in a certain way to be most effective. Do you view that as your role?

Amish Patel:

Absolutely. I fundamentally, and David, my background is actually, I came from financial services, so I truly have an outsider-in perspective. What financial services have done over the 20 years, health care is starting to do that in a massive way. So, I absolutely view my role as being a change agent for the company and really how can we transform some of these technologies, and I consider cloud as an exponential technology, something that is going to have, like you said, multiplier effect to the growth of this organization and absolutely focused on driving that for the entire organization.

David Linthicum:

Yeah, that's funny because in my roles as CTO in the past, I came in as an outsider, someone who was bringing in an outside perspective, and someone who was bringing in a new idea. I remember talking to my bosses one time what do you see me doing to us being most successful? In other words, what do you see me affecting in this organization to move the ball forward, to be a more innovative organization, things like that. And I was told at the time make as many mistakes as you can as fast as you can. Going on, and the ability to kind of think differently in terms of how you're doing something, and also ask questions and don't really kind of fall back on the fact, well this is the way we did it in the last ten years so this is the way we're going to do it moving forward, but questioning things and reinventing things and thinking how you can leverage technology in new, innovative ways to make it happen. Being a true change agent, which I believe is what you are, and bringing in an outsider perspective, that's a huge advantage.

Ultimately, the ability to kind of think differently in how you're leveraging technology and leveraging technology effectively, opening your mind about the different technologies out there and how you can bring value into the organization is really what the role is. So, how did you assimilate to the role and what were some of the challenges going in and what are some of the things that you've done during that time, so just cultural shifts, changes in perspectives in how people are leveraging the technology? What kind of positive influence have you had?

Amish Patel:

Sure. So, to answer that question, David, I just want to little bit tell you about our organization's cloud journey. Like many organizations, we started out very organically, and over the past several years, Elevance Health has transitioned from really an on-prem approach to a hybrid approach, which includes cloud technology and our journey toward a multi-cloud approach. Since I've joined, we have really converted our organic approach to migrating digital assets to the cloud to more of a migration factory-driven approach where we are really aligned with the business on what needs to move to the cloud and what specific quantifiable benefits we can achieve because of this. So, we really have been moving more toward an intentional based approach to this transformation rather than an organic or an as-needed basis.

And our cloud journey has evolved quite a bit, and in the last year or so, it has accelerated a lot where we have implemented a lot of standardization, automation, and orchestration to the various cloud environments we support. We have consciously made the decision to abstract the operating layer, so things like multi-cloud account vending, orchestration of cloud services, having a central intake process, these are the same across the different clouds that we support. And we really have taken a lot of these complexities, intricacies of operating in any one specific cloud and really abstracted it.

So, this has given us a unified view of capabilities to our business and constituents where they really can become consumer of services rather than builder of services. This distinction is very important because as a consumer you can consume things in a standardized way versus a builder will need to customize it

to their capabilities, creating one-off approaches, which is hard to maintain, manage, and monitor for the future. So, that's a little bit about our cloud journey.

Now, the question around some of the challenges we face, cloud being an exponential technology unlike any exponential technologies, there is absolutely a culture shift that has to happen, and I've experienced that too. If you think about from a mindset perspective—you hit on this—the whole mindset around how we have done things, this mindset that I—the keywords over here are this is how we have done things, and I've told my team if we hear that, we need to specifically double-click and watch out for that because cloud is not just about infrastructure automation but really an integration of services and capabilities into our pipeline. So, that's something that we have definitely zoomed in and really tried to make it more intentional about it.

David Linthicum:

And one of the things I thought you said was very profound, and we've talked about this on this podcast as well, is the ability to kind of do things smarter using certain ways to reduce redundancy. You talk about automation that occurs across cloud environments when you're dealing with multi-cloud, and, so, the idea with that, and it's just something we're learning as we're moving into 2023 and we're dealing with multi-cloud complexity issue is that we can't do everything—and you mentioned one-off—with one-off solutions that exist on each particular silo, whether it's an on-premise system, an edge-based system, a public cloud-based system, or different silos within even a single public cloud, but the ability to remove the solutions out of those and abstract them at a higher layer, even they may run on different platforms, but they physically—they logically exist across these silos.

And, ultimately, your ability to do that, remove a lot of redundancy systems so you have common security, common management, common automation systems, common cloud orchestration services, and doing so at a single meta layer versus trying to solve the problem in each and every silo that we're looking to build is the only way to make this stuff scale. I think that's a lesson learned for lots of people who are moving into this, not talking about you specifically. Certainly, chime in, but the ability to kind of think differently in how we're going to remove a lot of this redundancy that exists in these multi-cloud solutions that happen to be overly complex and overly heterogeneous in the ability to kind of simplify things. In other words, make complex things simple. That seems to be the path going forward. That seems to be what you're doing too as well. What do you think?

Amish Patel:

Absolutely, David. And I love how you said it too because if you think about AWS, if you think about Azure, if you think about GCP and all the hyperscalers, they are coming up with new services all the time, and it is very paramount that we simplify and provide that single orchestration layer where the company and the developers and the engineers can really use it in a standardized way. And that is, from my perspective, foundational as we migrate into a multi-cloud journey and really mature into it. The other area, David, that I also want to point out is really developer advocacy. What is expected out of your development team is very different what they have been accustomed to in the on-prem world.

This is a very critical distinction we have, and we have strong onboarding mechanism that prior to migrating them to the cloud, we give them a bootcamp overview of what is expected. And one of the really differentiating things that Elevance Health has created is we have created a concept of developer workbench where we have completely standardized our CI/CD pipeline. And if you want to move to the cloud, this is an excellent way to get yourself onboarded, and close to 60 to 70 percent of things are automated if you use a developer workbench. So, upskilling of developers and engineers is a key mandate. We also have incentivized the app team. We offer them cloud certification, we have organized several workshops with cloud providers, training credits, and also given them subscriptions on the web so that they can start learning what it is to be an engineer on the cloud.

David Linthicum:

That's great. And I assume you have multiple targets, in other words, we're using a common development layer that runs on any technology that makes sense for the tool chain to run upon, but we're able to deploy this on any number of target environments based on the needs of the particular application. Is that what you're doing?

Amish Patel:

Absolutely. That's exactly what we are doing. And creating that developer workbench is really, really enabling our developers to hydrate very, very fast. They don't need to know the intricacies of interacting with certain APIs and some of the native services that the cloud has to offer. We abstract a lot of that, and for them it's about putting that business idea to code and that code to cloud. That's the vision that we are running after.

David Linthicum:

Yeah, we're trying to get to a DevSecOps infrastructure where we are able to hit a single button and we're able to basically develop tests and deploy an application on any number of platforms to make it happen, and what you said is also very profound. The ability to kind of remove the complexity of doing a lot of that stuff from the hands of the developers, so it's done with automation on the back end. We're doing the automated testing, we're doing the automatic security implementation, we're doing the automatic orchestration, we're picking the target data stores, we're picking the target cloud environments based on the needs of the application and the input from the developers.

We're assisting in design and even there's sustainability systems that are moving in there now where we're not only looking at the efficiency of the application itself, which is very important. That goes to sustainability, power consumption, but also evaluating and auditing the systems so they're at the utmost optimization and efficiency so they're burning the less power and consuming fewer money, which is great when you're in the cloud because it's a utility and you're paying as you go.

So, those capabilities are important, I think, to build in the system. Some of it's available today; some of it's evolving, but I think if you have it on your radar screen as a CTO, it's going to serve you well because you need to—you just hit it. I mean, with the workbench product that you have, developers don't have to think about everything. And as someone who was a developer when I was way younger, you have to think about everything, including controlling the stack and dealing with data IO and platform capabilities, and if you're moving on a different platform, how are you going to utilize that particular platform a certain way.

You want them just concerned with building the business application and solving the business problem, and to me that's going to be a game changer because they're going to be able to accelerate their ability to solve problems within the company, the ability to deploy innovative solutions, which is key to growth, which is key to value.

Amish Patel:

That's absolutely correct, David. And when we think about this developer workbench, what we thought about is how can we standardize this journey? And the standardization is very, very important because as you move more and more assets to the cloud, you want to make sure that you control that complexity and you simplify things, and the only way you can truly get toward automation in AIOps is if you have standardization built in right from the beginning. And this is our approach for doing it.

David Linthicum:

Yeah, and that's another thing to consider and just kind of highlight. I think you have to build operations design and developer operations in the system and doing so in a standardized way. So, we are going to deploy this system into multiple cloud environments, going to have different workloads, different data stores that exist on different clouds. We really shouldn't concern ourselves with that in terms of how it's going to be operated. And, so, if you're building operational capabilities, you're building the correct API systems, you're building the correct resiliency systems into the applications, as they're launched.

We're able to work in concert with operational technology such as AIOps and other management and monitoring things, you're going to have a much better experience, because number one, the cloud provider is going to be able to optimize those workloads in a much better way, and therefore your cloud bill is going to be lower than just doing lift and shift and pushing code on a particular platform and saying, "Well it works, let's get to work." But having the ability to accommodate for these operational concerns and operational functions and building them into the system is a key advantage that I think many people who are deploying to cloud are missing these days, and it sounds like you guys got it, correct?

Amish Patel:

That's right. We got it, and we are continuously building upon it because the way I think about this, David, is this is the workbench and some of these things, it's never a destination. It's always a journey, and what we are doing with some of these things is we are really incubating, we are really doing all these things by truly shifting left and doing all this stuff right at the upfront level. And when I think about some of the things you talked about, operations and what have you, like observability. We have observability baked into all the way during the inception. Before an application is migrating to the cloud, we start implementing observability in our nonproduction environment so that we are now starting to understand how this application is behaving. My FinOps team is plugged into that, and if you think about it, FinOps is another area that is very differentiating, very unique to the cloud because that team is, from my perspective, is foundational as we manage and really optimize our cloud usage.

David Linthicum:

Absolutely. I mean, the ability to not only do the observability and to monitor it in an operations standpoint but also understand the ability for this stuff to bring value back to the business is kind of core, and it's really what FinOps programs are built around right now. I think FinOps really kind of got in place when people got big cloud bills and couldn't figure out why they got these big cloud bills suddenly due to usage-based accounting to figure out who, what, where, and why these utilities are being leveraged and why they're getting the bills and the ability to optimize these systems to get lower bills and have more cost efficiency comes along with this, but you hit the nail on the head. It's all interrelated.

Your ability to have a successful operations platform also leads into a successful FinOps. Your ability to have successful FinOps gets into successful operations, and all that stuff really should be considered and built into how you build and deploy these applications. And the more than you have all these things that are interoperating one to another and not necessarily operating in silos and doing so at an abstract and high level that's above the cloud providers and above the different technologies, but doing at the layer of orchestration or the layer we're able to solve things through configuration and not having to redevelop all these systems really is key to making this stuff all work and providing with the ability to scale, and I think that's what we're missing right now.

If you look at the surveys we've done, some people are successful, some people aren't, and if they're not successful, it's typically because they're not thinking in this way. They don't understand how to solve the general problems. In other words, they're making complex problems more complex and not making complex problems easier and putting the time and investment. You just mentioned that you're looking at the destination where you're looking to go, not necessarily the tactics in which you get there. The tactics will come along once you figure out what that destination is, and that's key.

So, this comes down to the fact that we're kind of coming out of the pandemic, we're thinking less about the tactics and deploying these things in a very short-term way and solving particular niche problems. If you look at this thing as a holistic issue and your ability to solve problems for many different applications and many different databases and many different clouds and have those capabilities not only built into the system but have them mostly automated within the organization so people don't have to think on how to use them. It happens automatically for them. Am I off base?

Amish Patel:

No, you're not. You're not. And this is exactly what the mandate I came into Elevance Health with, is how do we simplify something that is very, very complex and then standardize it. Because from my perspective, those are the patterns that we are deploying at Elevance Health, and we want to support. We run a very heterogeneous operation. And this is one of the things that you mentioned around the challenges, and really if you think about it, a lot of times we live in a very highly complex heterogeneous software world. There is a software for just about everything, and you name it, but our business partners are really looking at us to help them navigate and simplify this technology stack. And I think of myself as a business owner of technology and how do we simplify these things. And once we simplify, how can we standardize? And once we standardize, how can we automate? So, really that's the journey we are on.

David Linthicum:

Fantastic. So, looking forward this year in 2023, what are the big plans for you and your team at Elevance?

Amish Patel:

Sure. So, I would say, David, we are maturing more and more in the cloud, and we are getting towards the point where we are really deeply thinking about how can we digitize our core backend system. And one of our core technology strategies is to digitize our core backend system. And we want to foundationally digitize our core, and we are starting to make continuous inroads by slowly rewriting and rehosting some of these really legacy platforms into the cloud. So, that's going to be a huge mandate for us in 2023. Another big mandate is we are, if you think about our journey toward API and our engagement data platform as we call it, which is massive, we do about 6,000 transactions per second, close to 215 million API calls a day, so the scale is massive. We are planning on moving that infrastructure and those capabilities in the cloud. So, in a massive way, we want to move and really exponentially increase the experience that our members will have with our platform, so that's on the horizon for us in 2023.

David Linthicum:

That's great. Ultimately you're doing the right things and pressing the right buttons, which I think is what you were brought in to do, and I think that's—and I'm just kind of thrilled that the listeners are learning about this from people who are on the ground making this stuff happen because it's one thing to write about it and speak about it and, you know, I consult with other companies and help them with what they're doing, but it's another thing entirely to be in on it on a day-to-day basis and have core responsibility for a single shop and how you're going to transform that shop to leverage technology as to what technology should be as a true force multiplier for the business and the ability to return as much value back to the business as we can. So, one thing I love to ask people as they exit the show, what's one thing that you did that you would consider as most relevant to your success at Elevance so far?

Amish Patel:

Sure. I would say really the whole notion around upskilling. I think like any large organizations, we have a lot of engineers and developers, and quite candidly, they are hungry. They're hungry to learn and innovate. So, one of the things I've done is I've really, really amplified the ability for them to learn and grow, and we really are creating a highly learning mindset organization. So, that I would say is one thing that has—it's one of the key ingredients of my success. And, also, second is really bringing the rigor and methodology in terms of how do we want to operate in the cloud, how do we want to be resilient, how do we want to scale. Those are some of the things that are foundational that I brought to the organization, but I wouldn't be here if my team is not behind me and just grateful that I've had a really good team, that I've assembled a really great team to help us in this journey.

David Linthicum:

Absolutely. You surround yourself with smart people. That's the way you win the game. Certainly, my gigs as CTO I found that out pretty quick. So, tell us where the listeners can find you on the "interwebs."

Amish Patel:

Sure. You can always find me on LinkedIn. I post articles over there. I share what's going on in my organization, so you can absolutely look me up at Amish Patel at LinkedIn.

David Linthicum:

Yeah, this is great, Amish. I mean, ultimately you're on the ground, you're doing it, and it sounds like you're making the right decisions, which is awesome. I think that a lot of CTOs can learn from your journey, and hopefully they will learn from this podcast. 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 by my good friend, Mike Kavis. Find out more at deloittecloudpodcast.com. If you'd like to contact me directly, you can email me at dlinthicum@deloitte.com. So, until next time, best of luck with your cloud journey. Everybody stay safe. Cheers.

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