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For Cloud Professionals, part of the On Cloud Podcast

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Title: **Cloud strategies to thrive in a post-pandemic world**

Description: There's little doubt that the COVID-19 pandemic has accelerated cloud adoption, but many companies still face significant barriers to cloud. In this episode, David Linthicum and guests, Deloitte's Ranjit Bawa and VMware's Ajay Patel, discuss Deloitte's alliance with VMware and how companies can make cloud adoption easier by overcoming cloud barriers. They also talk about how—even during the midst of the pandemic—organizations can begin to chart a path to growth and agility in the new normal that will emerge. Hint: it's about finding the right partner on the journey, embracing new technologies (like edge computing), addressing talent barriers and creating ways of doing business.

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Operator:
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David Linthicum:
Welcome back to the On Cloud Podcast, your one place to find out how to make cloud computing work for your enterprise. This is an objective discussion with industry thought leaders who will provide their own unique perspective around the pragmatic use of cloud-based technology. Today on the show we have Ajay Patel and Ranjit Bawa. Ajay is the general manager of VMware's Modern Application businesses, and Ranjit is Deloitte's own US cloud leader. So, welcome, guys.

Ajay Patel:
Thank you, David.

Ranjit Bawa:
Thanks, Dave.

David Linthicum:
So, you've got an interesting background, Ajay. So, you're not only the general manager for VMware's Modern Application business, and I would like to hear more about what that is, and you're with the Mission to Accelerate Enterprise Application Modernization, you're leading cloud-native application solutions and services, and provide an at-scale multicloud management solution through VM Tanzu portfolio. I just got a briefing on that a while ago. And in your role you're responsible for the division strategy, business and product planning, engineering, and support VMware's Pivotal Lab services – know those guys, known them for a long time. And previously you were responsible for VMware's Cloud Provider business with over 1,400 service providers and VMware's cloud offering on all major hyperscale or cloud operating systems and VMware Cloud Provider program. Man, that's a pretty good bio, dude. So, tell me what enterprise application modernization is or VMware's Modern Applications business. What does that entail?

Ajay Patel:
Yeah, so as you know or you may not know, Modern Application Platform Business Unit, or MAPBU as we fondly call it, represents our Tanzu product portfolio. It's the combination of our pivotal acquisition, organic efforts we had internally at VMware, our acquisition of a team called Heptio, the founders of Kubernetes, as well as a couple other acquisitions like Bitnami, the number one opensource content out there in all the public clouds, as well as a company called Wavefront that we acquired a couple years back. So, we took all of the, modern cloud-related tools and technologies and put them under one business unit with a simple mission: helping customers build better software faster, leveraging cloud-native practices and cloud-native technologies. And it's built around Kubernetes, built around containers. It is really the heart of how we believe customers going forward in a multicloud world can either build apps, run apps, and manage apps at scale in a Kubernetes-based world.

David Linthicum:
Yeah, that's outstanding. You're hitting on all the relevant topics. I can see why you guys moved in that direction. So, Ranjit is one of our leaders at Deloitte Consulting and he brings the perspective that some of the most powerful opportunities for disruption come when new solutions enable the transformation of core operational processes and financial models. It's a perspective sharpened over the course of nearly two decades spent designing solutions for some of the world's most technologically-centered enterprises including leading global financial institutions where the technology is the foundation and service delivery model. So, wow, that's a great bio, Ranjit. So, what's your day job? People want to know what you do during the day. What's a typical life in the day of Ranjit Bawa?

Ranjit Bawa:
Yeah, thanks, Dave, and that bio, by the way, was quite a tongue twister, so thank you for persisting through it. But you know, what Ajay just mentioned I think is exactly where we play. We play at the intersection of deep business domain and what technology can do for our clients, realize those ambitions. So, if you think about a digital bank, or you think about the future of diabetes, or you think about digital supply chain, where a certain business use case needs to be realized through the power of application and product development, which is where Tanzu comes in as well, that's really the space where we play in and are the most effective, particularly now as we're in the midst of this big shift to modern technology and modern delivery. The intersection of business and tech and realizing the art of the possible is what's most exciting.

So, to answer your question, I spend most of my time looking at different business domains and challenges and working with our clients not only to envision what the future may look like, but help them realize that through engineering capabilities and realizing some of those potential opportunities.

David Linthicum:
Outstanding. So, let's get into the discussion, and this is going to be an interesting one, because ultimately we have some challenges out there. We're in the middle of a global pandemic and actually we're seeing a surge right now and having to deal with that, but we're facing a new normal. And ultimately the challenges that organizations are faced as they attempt to react, adapt, and thrive within the current pandemic reality, COVID-19, in essence trying to get to a vaccine or trying to get to some solutions, are going to be something that's going to be really kind of part of the new normal. So, Ajay, tell us how we should be reacting to those challenges and what should organizations be doing right now?

Ajay Patel:
You know, the reality as you said – the pandemic has put a reality check for many organizations. You know, there were a set of leading-edge organizations that were already well down the path of digital transformation, but many simply were slow or reluctant to embrace this change, and the pandemic has really caught them woefully underprepared and now they're trying to look to react quickly. And whether it's getting their employees working remotely all the way to having to deliver an omnichannel customer experience, to starting to really create some kind of a platform in which the employees and the customers can engage. A simple example, as Ranjit was talking about – even a simple thing like e-learning, like if you have children and you're seeing what they're going through. Every school automatically overnight had to have an e-learning platform in place. On the other side, if I'm trying to just provide some basic services as a small shop, I need to have a touchless payment.

So, you're starting to see every company, whether you are a typical digital enterprise or a traditional business, has to now effectively embrace cloud. And what we're finding is the ones who were kind of slow to adapt are having to react and they're looking for help. They're looking for help in terms of leveraging cloud technologies, looking to leverage platforms, and partners who can help them scale up and quickly react to this. So, we see kind of two schools of thought. The folks who were already well-prepared moved forward with very little glitch; the ones who weren't had to react overnight, and what was kind of weeks and days of planning turned out overnight where they had to get something up and running. And VMware's another example. We moved our entire workforce remote overnight, and our IT teams and systems luckily were set up that way so we could do it without a glitch. So, it really came back to your readiness. But every organization has to react because this has fundamentally changed the game in terms of how you need to operate going forward.

David Linthicum:
So, Ranjit, you talk to clients all the time. What do you feel are the challenges that they're facing these days?

Ranjit Bawa:
I think Ajay hit the nail on the head. A lot of them were slower to react, but give or take the last six months has in many ways strengthened and hardened their core capabilities in this space. But what has also happened is that it's been a wakeup call. While they've gotten through the pandemic they're potentially in a good position now, but they're really looking to reshape their portfolio, understand how their clients are going to buy in a more digital

world, look at digital products and digital channels as an offset to more brick and mortar type things, also drive agility into their business. I have a client of mine who again I mentioned earlier is in the med tech business. And they've been in that business for dozens of years, and they've learned fast enough to be able to repivot their assembly line and focus on ventilators versus some high tech companies. So, that was a wakeup call as well. How do you drive business agility into your product line, so that the next time this happens, or there's a demographic shift, or a massive shift in your client portfolio you're able to take advantage of that?

So, that's only client-facing, but then also similarly internally, again to the point Ajay was making, if you don't have the right processes and controls and the talent and ways of working in place, you're not able to take advantage and be able to shift and drive that agility. And that requires architectural discipline, a shift in the way how you build your products, and certainly core technology choices that will set you up the right way. So, I think the wheels are in motion and we've seen so much uptake just on the back of that shift.

David Linthicum:
So, Ajay, we have an alliance with VMware, and ultimately that alliance is about leveraging technology as a force multiplier moving forward. So, how are we going to leverage this alliance to in essence leverage technology and services so the clients can kind of rise above the issues that they're dealing with right now?

Ajay Patel:
I think that traditionally Deloitte and VMware have a great partnership around what I call platforms unique created solutions or next-generation hybrid cloud solutions, integrated multicloud management, very infrastructure platform-centric. With our acquisition of Pivotal, and our focus on modern applications, we are now able to come and engage with Deloitte more at a strategic level. Deloitte can come in, as Ranjit was saying, speak to the digital transformation, the business transformation. That needs to be powered by cloud infrastructure. And the focus increasingly is around modern applications, and so we're seeing many of our customers – a recent survey that we did showed 60 to 70 percent of the CIOs' number one priority was how do they modernize their application portfolio.

As you just said, Ranjit these companies, whether they were just simple digital RX to digital teller, every industry started to look at the core business applications and saying, "How do I fundamentally move to digital?" And in doing so, it's an application-first strategy, so centered around application. It's time to look at the application portfolio, and I think Deloitte and VMware together are able to come into a customer – we have tools which are kind of modernization tools. Deloitte has some tools – again, congratulations for a great acquisition in HashedIn.

Ranjit Bawa:
Thank you.

Ajay Patel:
We're starting to provide capability to our customers to come in to help with everything from assessment to looking at what we call the five Rs of modernization. What should I retain? What should I retire? What should I modernize from an infrastructure perspective? What should I re-platform or containerize? What should I rewrite or reimagine for a new business application? Be able to assess that portfolio, start small and grow big is something the two companies can provide both technology from VMware, our expertise in container technology leveraged with the business transformational capability that Deloitte has, now factored with expertise around product development. It's a complete solution set that the two companies can bring together.

One example, if you don't mind, is I was talking to a customer of ours called Carina. And this is not just about the social impact these applications have. And Carina is a tech nonprofit out of Seattle. They put an application in production in 11 days, from concept to production. And what they offer is a self-service app so that any homecare person, or a family that needs to find a caregiver, can quickly identify a caregiver and match to that. These kind of innovative digital solutions are being put in place in days now. Typically, that would've been multiple weeks of planning, design, and execution – 11 days. We're seeing that's enabled with the new technologies and what cloud has delivered for them. So, pretty exciting in terms of whether it's a small project or a large transformation, we can deliver joint value to our customers.

David Linthicum:
So, Ranjit, how do you see this alliance really kind of driving the acceleration of digital transformation within our client base moving forward both net new and existing?

Ranjit Bawa:
Yeah, I mean – and just to comment on the 11 days – I think that's phenomenal, Ajay. I mean, in many of the places that I'm at, sometimes it takes 11 days to even schedule a meeting, let alone release an application for production. But that is the new reality. I think most of our clients are wanting to be in that space. When they look at these kinds of releases and be able to deliver new functionality in those kinds of days, if they don't compete at that level it's game over. So, I think that's certainly driving this great momentum.

And then I think, David, to your question, we have a very natural fit culturally and otherwise, between VMware and Deloitte. And I think just the whole idea of the ambition has worked really well for us not only as we think about the brownfield environment for our clients that are looking to modernize their current portfolio, sometimes of hundreds of thousands of apps, to modernize them so they can be more agile and they can also be able to drive more functionality through them, whether we leverage Tanzu for that, or we also look more broadly at other – across the whole VMware-Dell federation, including Boomi and other great application tools that we've leveraged. But also, if you look at the greenfield area, which again is wide open for us as we think about all of these new products and the 11-day release cycle type things, I think that's a great opportunity as well. So, as increasingly we're working with our clients to think about that product portfolio, think about what their futures look like, designing some of those, we're working together to see how we can realize them in a matter of days and weeks versus months and years, which is traditionally – you know, sometimes can be the outcome.

David Linthicum:
So, Ajay everything kind of works in different ways out there, and the biggest question I get out there from clients is the barriers to moving these directions. So, what are the typical barriers that you see customers encountering, whether it's Deloitte or VMware customers? And what are ways that we allow them – or the technology can allow them or the service can allow them to overcome those barriers?

Ajay Patel:
You know what, David? I see many of our customers or the C levels get sold from all of the fad products there that the move to cloud is easy and quick. The reality is if you're not re-platforming or refactoring your applications or leveraging the strength of the cloud, you are simply moving to a new operating model that you're not prepared for. And so, what we quickly realized at VMware is our customers wanted consistent infrastructure, consistent operation, just look to drive efficiency and drive down operational cost. Which is the last several years we've been working with every one of the hyperscalers to enable VMware solutions for every one of the hyperscalers. If you go to, for example, with AWS, we have a VMware cloud on AWS. With Azure, we have Azure's VMware solution. With Google, we have Google VMware solution, Oracle VMware solution. And what we realized is what we often call lift and shift simply to get out of a datacenter, to modernize infrastructure while keeping the operation consistent was one of the first starting points. And we're seeing 20, 30, 40 percent return on investment just by modernizing infrastructure, by using modern technology.

But that's not sufficient. That's not digital transformation. That just gets you going to save money so you can invest the money in terms of digital projects. That's where kind of my portfolio, Modern Applications, Tanzu, in partnership with Deloitte, comes in. We can then start to selectively look at what should I containerize and how should I set myself for more of a modern DevOps continuous integration, continuous delivery type application delivery model? How do I then selectively put a new face to my application, whether it's a mobile experience or a new digital experience on top? So, you're starting to see this journey where it's not one-size-fits-all. The ability to kind of lift and shift workloads while maintaining a common operating model, being able to leverage the power of the cloud with the native services, using the strength of things like Kubernetes and a PaaS platform so you can get more productivity, that's the complexity our customers simply don't want in the business of running core infrastructure anymore.

Leverage the power of the cloud, use technology selectively, but they need help and they're looking for a strategic partner who guides them on this customer journey, being smart about what can they retain, what should they replace, where do they get operational savings, where can they start to modernize. And what tools and technologies can they use, and practices even to help build these applications? That's full spectrum, and being able to start small or start big depends on the quality of the customer and their problems is really what customers are looking for. Those large days of large outsourcing, large big bank projects are gone. You have to come and deliver great outcomes and be very opinionated about what solutions you can offer for the problems the customers have. That's really what we're seeing, and when we can do that we're very successful with our customers to drive outcomes.

David Linthicum:
So, Ranjit, what impediments are you seeing and how can the public leveraging digital transformation overcome these impediments?

Ranjit Bawa:
Yeah, so maybe a couple of things to add to what Ajay already covered. You know, there is obviously a lot of technology options today and our clients are often distracted by the plethora of choices in front of them. So, making them focus a little bit more on what they can do without driving all this operational complexity which otherwise tends to drive all kinds of sort of counterproductive outcomes at the end, and you've written extensively on the topic, David, as well, on the overall tech and cloud complexity space. So, I think just getting the architecture and the operational focus on what the technology looks like is pretty important just given all the choices. So, that's to add to that.

And then Ajay touched upon the whole financial aspect and how do you save money in certain pockets and use that as oxygen to go fund other projects. I think getting that right is a pretty important art as well, as much as it's a science. So, what's the buy, hold, sell strategy? Where do you start to drive costs out of your system so you can really go invest in the products and the areas you really want to drive and which are going to drive revenue and drive growth for your business? I think getting that mix right is pretty important.

And then the third thing I would say is that in all of this talent continues to be a big challenge for our clients –

Ajay Patel:
Exactly.

Ranjit Bawa:
Because they don't always have the right folks. And the folks they have sometimes have a certain predisposition to how they think about modern architecture and containers and how they think about microservices and things of that nature. So, I think just getting past the talent barrier is a pretty important aspect of getting this right.

Ajay Patel:
As you said, Ranjit, I think what we're finding is that kind of, for different applications, there's one school of thought where they want high productivity and higher extractions to deliver that. In other cases, they want full control. And being able to provide the right solution and leave behind kind of a day-two management experience is equally important. Like, these are great at setting the application up, but very quickly they run into trouble because the security policies haven't been talked through. The scale hasn't been talked through.

Ranjit Bawa:
Exactly.

Ajay Patel:
And so, we come on after the fact often cleaning up what are pretty cool architectures that were good for development but not good for scale or production. And so, thinking about end-to-end is one I see often where customers trip themselves into if they don't have the right partner, given the skill conversation you just had.

Ranjit Bawa:
Yeah – no, exactly right. I mean, it's different when you are building a doghouse versus when you are building a house. It's okay to do a POC or two, but when you're scaling to 7,000 apps and things of that nature you need to have thought about the architecture differently and upfront versus trying to make it up as you go.

David Linthicum:
So, Ajay, I love the advice you gave and the fact that moving into a purely lift and shift methodology – I saw this several years ago and it was cringeworthy for me – you know, ultimately won't get you where you need to go and you end up migrating twice. You end up migrating once to a platform and to a hyperscaler system that won't necessarily serve the needs of the application, and then you have to get out there and refactor it again. So, you end up basically doubling the work that you're moving forward. So, what are the next stages here? You know, where are moving into digital transformation? What's going to happen after the pandemic goes away, after we kind of look at the infrastructure, and we're not necessarily in a panic mode anymore, and we have to think about this in an orderly and a sequential way to fix these things?

Ajay Patel:
I think there are a few things that are going to persist, David, post the pandemic. This remote workforce or work from anywhere is here to stay. The fact that customers have now become much more attuned to having an omnichannel experience and expect things to just be instantly available, which means you need to have the automation and the supply change to deliver goods on times as predicted. That kind of consumerization is not just going to happen on the IT side, the business side as well. And so, the way you expect and who you want to work with to an API-first strategy in many cases is becoming the norm. So, what I'm seeing more and more is customers and businesses are starting to think about what is the interaction with their partner community, with their customer, their supply chain? And how do they start to look at their digital processes and transformation consistently for many years to come? The thought leaders are already looking at AR/VR, for example, to improve your shopping experience. So, as some are just talking about getting some basic digital foundation in place for many companies, others are already leap-frogging and starting to think about how do they use data, AI/ML, and these technologies – on one end.

The second end – I don't think the world is going to get centralized. So, this notion of big clouds – the world is actually getting more and more distributed. So, we're seeing edge and edge computing is going to provide a much more distributed environment, which means you need to worry about security in a very – a different way. What is the parameter of your enterprise anymore? Where do you build a fence? There is no fence. The fence is built around users and applications and resources. How do you design for that? So, you're starting to see the next stage of digital transformation is really about architecting for a multicloud world where the cloud is no longer just a central computer resource but also the edge. In this world of distributed computing, how are you going to set yourself up with identity as a core, security built into the application, and be able to manage and operate at scale where things are highly distributed, coming from services, products, and things you've built and things you acquire?

So, you just have to fundamentally think about the world differently and you've got to be prepared for a much more technology-led business than the traditional way of reacting to just supporting traditionally operational processes. So, I think it's an exciting time for being in tech. We are the business, as my CEO often says. Tech is breaking out, or tech is his favorite word, and I think that cusp is where every business is a technology company in some form. And the bar has gone up where everybody needs to leverage. And you make user technology, so how do we make it more accessible and more easily usable to build kind of the solutions that they need? That's a new frontier and we're pretty excited about it.

David Linthicum:
So, Ranjit, 2021, 2022 – where do you think we're going to be focused and what problems are we going to be solving?

Ranjit Bawa:
You know, everything Ajay has said I'd underline. And I also would say that we are truly in phenomenal times. It's probably once in a professional career type of a shift that we're seeing. And we are likely in still the third inning of a nine-inning game. So, while we can look at the next couple years while we build lots of momentum, I think the story is going to continue to play out for the next decade.

But if I look into '21 and '22, for sure I think the shift is going to be towards the application space as we think about products, digital products, serving customers, serving employees differently. I also think in addition to the bigger shift that we're seeing, I think our clients are looking to also be able to restructure the ways of working. We are going to certainly see, and Pivotal showed the way earlier, of how you create cross-functional teams that have functional expertise and technology expertise so you can go work together in a short sprint and go deliver functionality that can truly move the needle quickly. So, we're certainly going to see that. We're going to see architectures that, again, to Ajay's point, are pervasive, not just within the four walls of a typical datacenter, but there are no boundaries there. And as we continue to push the edge, we're going to see some radical shifts in architectures as they relate to those.

I also think we're going to see a lot more ecosystem plays as in we'll look at smaller, specific technology choices and players that only operate in the IoT space in supply chain, or they operate in the space of compliance and preventive maintenance for large turbines, and they need to be part of that ecosystem. So, increasingly we're seeing a collection of those ecosystems glued together by some strong, underlying technology fabric like the Tanzu construct, or the broader VMware construct. I think it will be more and more important because all of those together will bring some of these things to reality. So, I'm super excited about what the next couple years not only do, but also position us for in terms of the next decade.

David Linthicum:
Absolutely. It's going to be an exciting time. So, Ajay, ecosystems, partnerships, ultimately the ability to leverage these relationships is something that's going to add value to customers and clients moving forward. And removing the public cloud providers out of the equation, which ones are you most excited about and why are you excited about them?

Ajay Patel:
I'm most excited about if you look at the whole space of data, not just because you see the crazy valuation and the success of Snowflake, but if you look at the two spaces that have really caught on, one is the space of collaboration. If you look at the latest acquisition of Salesforce of Slack even, effectively we're going to be working in a distributed world, bringing teams together, collaboration, working in a distributed environment, and being productive in one team that's here to stay. So, partnerships which allow you to start working in a collaborative manner, whether you're a tech company in development or you're working across teams on a project. That whole collaboration, commerce – the web conferencing commerce is starting to come together effectively. That's one domain I'm very excited about.

The second is data. What do you with all this data that's being generated on the edge? You're not going to send it all the way back to the cloud to process it, so what can you start doing to apply intelligence at the edge? How do you take all of this machinery in the back and the data you're collecting it, make sense out of it, but apply it at the point of action? So, edge technology, more and more data-driven applications, more intelligence at the point of impact, collaboration – these are some themes that we can see out there, along with security. And you're starting to see how do you wire in security where again where we have the app, or the enterprise has no perimeter. So, as you start to think about it, how do you think about not just security after the fact, but designing into the security as you build the application and deliver it? So, the ecosystem for me is going to be across the board finding partners, innovative solution.

And a big theme, to Ranjit's point, is vertical solutions. I see more and more focusing on vertical solutions with managed service providers like what Deloitte's looking to do to help customers not just build it but operate it in a vertically-oriented manner is where I see the trends and the partnerships emerging.

David Linthicum:
So, Ranjit, which partnerships are you most stoked about?

Ranjit Bawa:
You know, I think in addition to that, I would say the vertical solutions are the ones where we are most engaged especially as you think about insure tech business, or where we're going with banking and digital banking, or we're going with the future of healthcare and telehealth. And there are a bunch of boutique players that operate in those spaces that truly complement and realize a solution much faster. And obviously the bigger ones we've all kind of worked with but there are a plethora of smaller ones that are emerging, and particularly for, you know, a systems integrator like us that is focused on engineering, these are solutions piecing all those together and creating a jigsaw puzzle that brings to reality a future of a particular industry. I think that's very powerful to us. So, we're certainly quite focused on the vertical solutions that Ajay mentioned and we're seeing some significant disruption coming out of those.

David Linthicum:
It's an exciting time. I think going forward in 2021-2022 my own prediction is people are going to learn the value of the technology and it's going to become more of a strategic focus. And so, if you think about it, the last 20 years we kind of leveraged technology and automation as a way to run a business, in essence automate things in the background that used to be done in a manual way. Now we're moving to a point where it's basically going to be the business. It's going to be technology moving us forward. It's going to be the innovation. It's going to be the creativity. It's going to be the speed to market opportunities. So, it's going to be a new frontier going forward. I couldn't be more excited, man. I'm looking forward to it.

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