



The Deloitte On Cloud Podcast

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Title: Industry clouds Taking cloud to the next level

Description: Industry clouds are composable building blocks made up of cloud and other next-gen technologies that help companies more effectively solve sector-specific challenges. In this episode, David Linthicum talks with Salesforce's Jujhar Singh about the rise of industry clouds, how they can help companies gain a competitive edge, and their evolving capabilities. They also discuss the future of industry clouds and their potential to help companies gain higher ROI from their cloud investments.

Duration: 00:25:05

David Linthicum:

Welcome back to the On Cloud podcast. Today on the show I am joined by Jujhar Singh, Executive Vice President and General Manager at Salesforce. How're you doing?

Jujhar Singh:

I'm doing quite well, David. Thank you for inviting me.

David Linthicum:

Happy to have you. Tell us what the day in the life of a Salesforce executive vice president is and general manager.

Jujhar Singh:

It's working with customers, helping them with their transformations across the board, and building great products that can make them successful. I enjoy that every single minute of the day.

David Linthicum:

Awesome. And Salesforce is something that's been around for a long time. I've been working with them, I think, even back in the '90s. It's kind of like the original—OG cloud player out there, software as a service started to emerge out of the application delivery networks, and really kind of Salesforce was the premier example of companies that are able to provide software as a service. And, so, here we are in 2023. So, where's everything today? In other words, where is the market moving to? What are you guys focused on at Salesforce?

Jujhar Singh:

I think across the board we are, as you in our latest Dreamforce announcement and leading up to it, we are very much focused on real-time CRM as one of the big areas. This is making CRM not just based on transactional data but on real-time data and combining them, building unified profiles, and activating them for connecting better with your customers. So, that's a big thing for us across the board. Secondly, I think industry clouds is a huge thing where we are investing heavily. And if you hear our CFO, she also talks about the expansion into international markets. So, those are the three big things that are top of mind at Salesforce.

David Linthicum:

Yeah, I think one of the things that came out of the recent public cloud conferences, most recently re:Invent, but it's systemic to all of them is really the notion of industry clouds or verticalized cloud. This is something that's been around for a long time. We're writing and speaking about it. Certainly, when clouds first started, kind of put away for a while as a concept, and it was reinvented now as something that seems to be emerging in terms of the fact that we're going to verticalize clouds, we're going to provide industry-specific services. And the exciting part of that is in many instances you're building system, you're building vertical-specific services, could be banking services, could be risk analytics, things like that.

We now have the ability to leverage what I call other people's code, in other words, to do this versus reinventing everything from scratch, and also putting that into a domain, and so if compliance changes, things like that, that'll kind of evolve on its own path, of its own lane, so to speak, and kind of saves us and removes us from having to deal with those dependencies. So, most of the audience, I think, has heard of industry clouds but doesn't know exactly what they are. Give us your definition of it and where it's applying into the world of cloud computing today and the world of business.

Jujhar Singh:

Absolutely. So, as you rightly pointed out, David, industry motion is not new. In fact, if you think about this article, both were deep in industry software but mostly on-premise. Industry clouds, compared to that, is a relatively new phenomenon. In fact, Salesforce started the journey in 2016 with two clouds, but now we have twelve. The way to think about industry clouds is these are modular building blocks that actually can speed up the development of industry-specific digital solutions. With industry clouds, I think you have a continuously evolving digital core on top of which you can build differentiated industry capabilities.

In my mind, industry cloud platforms are unique in the sense that they combine software, platform, and infrastructure-as-a-service capabilities to deliver specific solutions for industry use cases. They're bundled with data models, industry processes, tools, and applications, and these industry clouds provide companies with turnkey capabilities. The other big part about this is they are composable. They can be used in conjunction with your existing stack. So, a lot of positives going with industry clouds.

David Linthicum:

So, are we leveraging, when we're leveraging industry clouds, an application interface, a user interface that's going to have a visual representation of what's in their APIs, discrete microservices, or all of the above?

Jujhar Singh:

All of the above. David, if you think about kind of the depth and dimensions of industry clouds, they come in wide ranges. You have kind of cloud platform providers who would provide extremely lightweight solutions, merely as accelerators on top of cloud platforms to deep industry clouds that have data models, processes, analytical twins, industry-specific AI, and even compliance built in. Industry-specific integrations are another dimension. As you build industry clouds, adherence to common standards becomes a norm. If you are in telecommunication, the informed APIs become key. So, it depends, but it goes from lightweight accelerator solutions to great depth of industry clouds. At Salesforce, we believe in investing deeply on industry, so we are going at all levels of the stack.

David Linthicum:

Yeah, and you guys have been at it for a long time as far as providing key business processes that people can leverage within the enterprise you don't have to build yourself. And if you think about this, it's kind of a natural progression because now we're getting into industry-specific faces. And if you look at

applications, that's kind of the way they need to move. In other words, they can do things in the general but typically it's going to be doing things in the narrow as it relates specifically to the vertical that they're in. I mentioned banking risk analytics, healthcare data privacy, all these things, and certainly the data models are in there that I think developers are spending way too much time reinventing the wheel each and every time they build these systems. We have now these reusable components, which means—and components that we're not writing and reusing, components that other people are writing, so, therefore, we don't have to write them, and we know they're better tested because they're used in multiple domains and we can leverage these within our applications without building them ourselves, so speed to market, the ability to more agile and change things as you need it, also the ability to make certain things that are tough somebody else's responsibility and so we can do things with less resources faster. Just seems to be a win-win. So, what types of industry clouds are out there? How is the industry categorizing this right now?

Jujhar Singh:

Great question. David, I think if you look at the industry clouds, there are different dimensions by which you can slice and dice them. So, one dimension could be some industry clouds are focused on one industry. Then there are other offerings which are multi-industry clouds. Salesforce is an example of multi-industry clouds. We have twelve of them. And there's one distinct advantage when you are looking at multi-industry cloud solutions because, as you rightly pointed out, you are building composable business components. And these components can actually be shared across different industries as well. So, let me give you a quick example.

If you are building rebates functionality for manufacturing, it can be used for auto, it can be used for med tech. Not only that, in multi-cloud solutions, you actually can share best practices as well. I'll give you a good example. Life events, for example, in Salesforce was developed for the insurance industry, but the applicability in healthcare is equally relevant. So, we were in the position to take one best practices from one industry and apply it to another. So, that's one dimension of industry clouds, and whether you are focused on one industry or multi-industry.

Secondly, there are clouds which are built with higher order of compliance, sovereign clouds. Government cloud at Salesforce is a good example of high level of compliance baked into the cloud with all the capabilities of composable business processes in it. So, that would be a second dimension of how we distinguish between the types of industry. And finally, I think this is a very kind of subtle difference, but I really want to point it out. There is another dimension of industry clouds and industry clouds platform. Industry clouds are much more focused on kind of building SaaS applications with prebuilt business processes for the industry, but the extensibility paradigm is rather limited, whereas industry cloud platforms have best of both worlds. They have deep SaaS applications with prebuilt business processes, but they have the extensibility and configurability of a true cloud platform. So, that's another area of that kind of difference of types of industry clouds out there.

David Linthicum:

So, how does this evolve? So, in other words, if I kind of look at it, and I've written and spoken about industry clouds a few times, and, say, ten years ago there were these very coarse-grained things. In other words, you use an application that was related to banking, and it was either all or nothing. You got the whole application; you didn't use the application or only used pieces of it. Sometimes they had APIs. In many instances, they weren't to the granularity that you needed to leverage the application as microservices, for example. And as we evolved, it seemed like we were breaking those things apart, also making them more valuable. So, instead of giving you an application and go: "here's an industry-specific cloud that solves a particular problem, and it's an application that you can use it the way I wrote this application," we're giving you thousands of discrete services that do various things that are related to the industry and deal—and bind back and buying back to different schemes and data models that are related to the industry.

So, chemical production, for example, things that are that specific. And if you think about it, now we have what's changed is the buildability. So, your ability to kind of use these as piece parts to create something that's of more value because you have things that are much more fine grain level that you're able to leverage any way that you want to leverage, and we can use orchestration to bind them together, applications, composite applications, things like that. Seems like that's the way they've evolved thus far. So, how will they evolve in the future? What are we looking at in two, three, four, five years period of time?

Jujhar Singh:

David, I think there a few dimensions that I think industry cloud and industry cloud platforms are going to evolve. One, I think the adoption of industry cloud platforms is going to become very far more prevalent. Even one of the surveys in 2021 pointed out that today that number is 40 percent of respondents had started the adoption, 50 percent were in pilots, and another 15 percent were considering deployment by 2026. This number by 2027 is going to be as high as 50 percent of their critical business initiatives will be running on industry cloud platforms. That number, mind it, is 10 percent today. That's a big part. It is going to be widely adopted, and as you rightly pointed out, this composable business services and confidence which you are not all stitching together, which you are getting in big blocks, that you can actually make them work side-by-side with your existing structures is a big advantage. So, that, in my mind, the adoption is you are going to see it evolve in a much, much higher fashion.

Secondly, today the focus on industry exchanges is relatively limited. We still are building software which we are giving to one customer who is selling it to all their customers and servicing them, exchanges where any industry, multiple industry players are going to get together to start solving problems is going to become a norm in the next four to view years. I'll give you some examples. For example, at Salesforce, we launch philanthropic cloud, which is a many-to-many exchange. With all the nonprofits listing the projects where you can actually put money and, on the other side, you have all the demand coming in. So, these kinds of marketplaces we launched another example to solve for sustainable transformation. We have launched a carbon exchange, a net-zero carbon exchange where people can buy carbon offsets. That is another example, but in the context of different industries, it is going to become very, very relevant that you would have industries have their own exchange.

Thirdly, I believe that what industry cloud platforms have given the different industry leaders the capability to actually come and become part vendors on their own selves, so this model of co-creation which has started now. Co-creation trend, I believe, is going to become more and more prevalent because industry cloud platforms make the industry leaders, provide them composable—competence composable business processes where they can then bring their secret sauce and make it available and sell that model. So, that I see as a big area that you would see more and more happening.

Fourthly, I think sustainability is a big thing, and sustainable transformations by industry are going to become a big part and parcel of all industry clouds. This is something that has just started, but I see this trend increasing in a much, much bigger fashion. Finally, I think the evolution of pricing is also going to become much more value driven. Today, for example, we are still in cloud platform, still either focused on some form of consumption at the macro level when you are the infrastructure as a service layer level. Or at the SaaS layer, you are talking about per user. But getting aligned to much more of a value driven. If you are an insurance company, gross-rate premiums is a good index. How much are you addressing through that? You would be in a position to have a much more value-driven pricing model with industry clouds. Those are some of the trends that I believe are going to be what we see in the coming years.

David Linthicum:

So, as we move in this direction, do you think that this is going to be core to DevOps tool chains, in other words, we're building things in DevOps doing continuous testing, continuous design, development, coding, all these sorts of things to, in essence, automate agile, but if we have the ability to kind of leverage these services and check for leveraging these services is really as part of the validations of the systems as they move from tool to tool, that seems like it's going to make it the new normal. So, why is this ultimately the new normal, what we're looking at, and what reasons are enterprises citing for moving to industry clouds specifically?

Jujhar Singh:

Great question. I would say one thing. If you think about COVID, kind of, that had increased the level of digitization; it was accelerated phenomenal. And if you compare the automated, if you try to do digital transformation based on horizontal solutions, they have been expensive, lengthy, and suboptimal. Horizontal solutions require a significant amount of custom build. They require ongoing maintenance and are not suited for fast-changing industry dynamics. In complete contrast, what industry clouds—and they are going to become the new normal—they deliver faster time to market, capacity to change, agility, and even easing the migration to cloud. All those three dimensions are going to make sure that industry cloud platforms become the new norm.

Now, along with that, one thing which I talked about earlier as well was the composability part and the co-existence part with your existing stacks. It also is helping people launch newer services in a very quick fashion. In COVID, we saw multiple examples of that. I'll give you one example out of Salesforce. In Salesforce, a customer wanted to launch a new service leveraging a communication cloud. They were in a position to do it. If they tried to do it on their existing legacy stack, it would have been extremely hard, but a model which is all catalog-driven, let them launch it across multiple channels in a very, very quick fashion. We have seen similar examples of launching of new services in insurance while the existing stacks still remain. So, this is also going to be a model of quick transformations, but fundamentally you would see this becoming a new normal because a fast time to market, agility, as well as ease of migration to cloud.

The last part that I would add is it actually helps kind of the technologists and the strategists, the business strategists to work together in a new model as well as agile innovation teams. Since it's not all about kind of the clumping attaching things, it is also about using business innovation tool. That transformation is possible to industry clouds in a much better fashion.

David Linthicum:

So, one of the new concerns that we're hearing certainly in the more recent surveys from the boards of directors and CEOs and even investors of organizations is the lack of ROI that they believe that they're getting back from cloud computing. Everybody—we just did a recent study, and what we found is that some people are doing really well. They're getting the value back from the cloud-based systems and able to weaponize innovation and things like that. Other companies not so much. You know, as we're kind of measuring and looking back over the last ten years as to what we did well and what we didn't do well and kind of giving ourselves a report card. So, what is kind of the ROI or the value proposition for industry clouds and what should enterprises consider in terms of metrics that are going to provide or show value coming back to the business, or in some cases not coming back to the business?

Jujhar Singh:

I'll go back to the same two big points that I talked about, and the biggest ROI is faster time to market. This is where I talked about whether you are trying to do a wholesale transformation, or you are trying to keep the legacy stack and launch new services very quickly. That's one metric that industry clouds—you should really benchmark them against. Secondly, the ability to change. You are not trying to tie all the things together yourself and then trying to make changes. Industry clouds are continuously evolving on the core level, whereas you can bring your secret sauce on top. So, the agility with which you can operate is going to deliver super high return on investment. So, those two would be the key metrics that I would benchmark any industry cloud on.

Now to your second question, David, kind of what are some of the best practices or the advice that people should think about? I think some of the norms of previous times still hold true in the universe of industry cloud platforms. They should—our customers should not be thinking about big bang, but they should be thinking about steady changes. Composability and modularity of industry platforms let you launch changes better and quickly. So, I think that mindset has to be to show kind of iterative quicker changes and see the results in real time is going to be a big part of it. And second thought and advice that I would have, I made the distinction when you asked the question what's the different types of clouds. We talked about industry clouds and industry cloud platforms. If the customers had a choice, I would always ask them to go for the industry cloud platform rather than the industry cloud. You may get a great starting point, but if you don't have the ability to configure or to extend and bring your own secret sauce, you are going to be hamstrung. That's where the power of industry cloud platforms over industry clouds becomes extremely important.

David Linthicum:

A lot of our listeners are cloud engineers, cloud architects, cloud developers that are interested in moving into this line of work, and I think the major cloud providers are—have steps in this area, but what advice would you give somebody who wants to change their career where they're focusing on cloud in the wide and also want to focus on industry clouds in the specific? In other words, specifically where those capabilities are, whether it's development, implementation, administration, things like that. Where do you obtain those skills? Where do you learn more about this?

Jujhar Singh:

So, every vendor who is actually operating in this domain, they are investing—given when you deliver industry clouds, you have those composable business processes, along with the tech stack, both available. So, understanding that higher level of business processes, or those competencies that can help you build faster becomes equally important. So, most of the cloud vendors have offerings which let you learn on the self-serve model. I can give you an example of Salesforce. So, for example, our Trailhead is a big element where we have delivered deep capabilities which not only explain how does the industry operate, but how do our industry clouds operate. How are they platformed? How can you extend them? That becomes a part and parcel of that. So, in my mind, this actually changes the paradigm of learning for all our developer community. Along with technology, they will also get a better understanding of the key business processes of the industry so that they can build better applications with these composable business processes.

David Linthicum:

So, where can our listeners find out more about you and some of the work you're doing at Salesforce, and where is Salesforce focused right now in the industry cloud space, and where can we learn more?

Jujhar Singh:

So, at Salesforce, as I pointed out, we have twelve industry clouds, and those are deep industry clouds, as we talked about it. You can go to our website to get the overview of all of the different industry clouds that we have and the industries in which we operate. If you want to learn deeper about our products, you can go to Trailhead and actually experience our products directly through that learning experience. Finally, if you want to play around, Salesforce is unique also that we have trials for every one of our industry clouds where you can actually launch that and actually play around with it directly in the software to see how they work.

David Linthicum:

Check it out. I mean, the name of the game right now is better, faster, and with more reliability, and right now I think we're getting to the point where if we're using somebody else's physical services—storage, compute, databases, things like that—and we got comfortable with that with cloud computing, now it's the ability to kind of use those resources that are tailor made for the particular verticals that we're in and the ability to have composable systems and development systems so we can build these applications in a fraction of the time and also change them in a fraction of the time. Agility's the major innovation value of cloud computing, so everybody needs to keep that in mind and keep your eye on the prize.

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