



Daniel Newman: Greg Pavlik, welcome to the 2022 Six Five Summit. It is so great to have you joining us here.

Greg Pavlik: Thanks for having me with you.

Daniel Newman: So it's a humongous topic, gigantic topic. It's the cloud. I want to talk to you a little bit about what is going on in this space. I want to talk about how enterprises are thinking about cloud. I want to talk about platforms, talk a little bit about data autonomous, even get to the edge. Are we allowed to do that, when we talk about cloud, we allowed to talk about the edge?

Greg Pavlik: Yeah, I think we're going to have to, I think that's where it's going. Things are going...

Daniel Newman: I think you're right. And if the audience, if you're out there, you might even get so lucky it'll talk about AI. Because you know, nobody talks about AI so we might squeeze that in here. But in all serious, you're leading a very large business at Oracle, cloud has become an increasingly important business to the company.

I think it was what over the last year you've grown to be the overall cloud business is now over 10 billion a year for Oracle, very impressive. And the company continues to push the envelope, innovate and grow there. You're out there between leading your teams and the conversations that you're having, Greg, what are you sort of seeing as the mega trends in cloud right now?

Greg Pavlik: There's interesting dynamics, obviously there's still a tremendous amount of momentum to move from on-Prem into the public cloud. That said, on Premise footprint for enterprise systems is still the largest segment. When you look at even what's going on there, the private cloud deployments are likely still larger than the public cloud deployments. So we're at, still at the beginning of this evolution in terms of the way enterprises and governments think about running their essential systems.

But I do think there are things that are happening that are representing kinds of sea changes. One maybe obvious one, but I will just point out that virtually every enterprise or certainly every enterprise is really looking at multi-cloud strategy, that's almost without exception. And that raises all kinds of complexity in terms of how these worlds coexist and work together.

The other interesting one is that the world was moving together over the course of globalization. And just looking at geopolitical events, the world is now kind of moving apart. There are already moves for more protection around data sovereignty, localization of cloud infrastructure within the EU. But now with some of the conflicts in the periphery of Europe, and the more complex disentangling of the world, we're starting to see a push toward much, much more distributed cloud infrastructure.

So we went from putting everything in large centralized regions and now a push with lots of forces moving in the opposite direction. And then you, of course, you mentioned AI. I will say AI powering the cloud in ways that not only displace humans, but make displace human operators, but also make the cloud much more adaptable to the specifics of the business in terms of the actual industries in terms of government requirements, but also in terms of the individual



business entity itself. So we're seeing a lot of change that's happening very rapidly. And I think it's fair to say that those general trends are going to define what the cloud becomes, what the experience of using the cloud is for businesses over the next five to 10 years.

Daniel Newman:

Yeah. There, you kind of touched on everything that we'll talk about throughout the rest of the conversation there, Greg, and I appreciate that. What you mentioned about companies moving to multi-cloud absolutely been a huge pillar of what we're seeing as well, no question that's going to happen. It's sort of been an interesting sea change, even in the last six to 12 months where the word, hybrid, has been quickly replaced in many marchitecture conversations, both technical and go to market with the word multi. So for a while, by the way, you also made a really interesting reference to sort of what happens in tech, right? We start with everything's going to do something, like everything's going to go to the cloud, everything's going to go. And then we very quickly came to realize, well, actually most workloads are still on Prem.

And then it was okay, well, everyone's going to have some stuff in the cloud, but they're only going to use one cloud. And so a lot got built that way. And then it's now really the disaggregation of everything is we're seeing everything from the chip sets disaggregate to the way companies are deploying the workloads. And then we're seeing things like containers and software start to really eat the world in the sense of enabling seamless interactions with all of our technology, but done, so in very de-tangled infrastructure, like you said, very distributed infrastructure. You kind of, you started there, so let's dig into that a little bit more. Because, we mentioned the distributed, we mentioned modular here. Now this even goes all the way out to the edge, doesn't it?

Greg Pavlik:

Yeah. Well, it's interesting you brought up the container topic. Our ability as an industry to distribute software built really in any kind of implementation language or, toolkit or, a library has now become so contained in this world of modularization that you can generate a container. You can run it in anything from a handset, to a large Kubernetes cluster on a centralized cloud region. So we are seeing mobility of applications and mobility of application logic, in a way that was not possible just a few years ago.

And it opens up all kinds of interesting possibilities. I mean, imagine you're collecting data or telemetry on an oil rig and you're pulling that data off and you're starting to flow that data into large centralized data lake and building complex machine learning models. You can package up those models now, redistribute them all the way out to the rig, run them detached from the cloud. And start to look at things like preemptive maintenance or just performance behavior tuning, for really complex scenarios, machinery, maybe supply chain type use cases.

And those applications now are things that are built up of very modular components, but they're distributed across infrastructure that in some cases' kind of very radical differences in terms of its overall form factor. And a few years ago, if you wanted to do that was a huge amount of custom engineering, huge amount of custom software, a huge amount of custom infrastructure. It's now becoming more and more possible to think about applications in a way that starts to abstract away from all those complexities and really focus on the core value proposition for the end users. It's not seamless end to end yet, but along with the multi-cloud developments, I think



as we see cloud infrastructure become more modular and able to run in smaller and smaller form factors, it's going to press up against the edge, and allow us to start to do these same kinds of complex scenarios almost as simply as if they were your more traditional centralized web application.

Daniel Newman: Yeah, you definitely are going to see this sprawl. And of course the edges orders of magnitudes larger than the data center than the core data center. And of course the edges become sort of little data centers. The telco cloud is a little bit of a microcosm of this bigger cloud of how we sort of do that. Right. And how it, how it becomes extensible.

And a lot of this is about data, right? A lot of it, Greg, is about being able to collect, aggregate, utilize, manage, talk about it all. So let's start with data management, for cloud adoption to scale, data management's going to be critical. One of the things that Oracle you've been very focused on is autonomous systems. Why is that so important in many ways, why are you guys kind of looking at autonomous, not just as a thing, but really table stakes for company consideration of investing in cloud?

Greg Pavlik: So, the autonomous work that we've done is really been focused on the Oracle database and taking the kinds of tasks that would've traditionally required a lot of human labor, and subsuming them with machine learning models. And the machine learning models, the more you use the database, and the more the fleet of customers use the database, the smarter they get, right? So this is taking, taking a problem that often required a great deal of specialist human effort and making it automated because we have this aggregation of customers within a cloud context where we can start to do the learning across everything we're seeing within the cloud environment. It's powerful in and of itself for companies that want efficient and really cost effective ways to run a lot of Oracle databases. But where gets even more interesting is in these scenarios, we're talking about.

So if you think about it where you've got a cloud, maybe a hub and spoke model where there's a large centralized region and then smaller regions geographically distributed, if you have to have humans keep track of all that stuff, monitor what's happening, not only in terms of the distribution of the cloud infrastructure, but the distribution of the databases, the complexity just, it becomes overwhelming. But if you have this autonomous concept, where you could have databases that to a large extent are self-administering, self-healing, self securing all of a sudden now if you've got deployments and those deployments span multiple cloud regions, and you're able to really deal with that. What would otherwise be explosive complexity in a much more manageable way. In some ways you want it, the ideal is, we get to a point where the underlying machine learning that's driving the autonomous infrastructure, just removes the human from the loop altogether.

Daniel Newman: Yeah. And, and as I think about that, right, I think about one is, there's like, it's always IT extensible to the business. It starts autonomous is really about keeping everything up and running, right? That was, it's Genesis of it all. But as time goes on, it gets more and more sophisticated. It really becomes about autonomous grows into this big strategic play with the AI



and the potential to not just create autonomous systems and self-healing, but to really be able to bridge the entire portfolio.

And that seems to be, as I've watched, what, what Oracle is doing, right, you are really building from a position of strength. Always had a huge relationship on the data and database side that's core to Oracle. Tons of investment in SAS, ERP, CRM, customer experience that's been a big expansion of the business over the past few years. And really, while the company is just really starting to, hit its stride, in terms of being up there in those cloud conversations with some of the hyper scale clouds you've brought together SAS, you've brought together PaaS, you've brought together IAS now. And with autonomous, you've created kind of an autonomous, a system of intelligence. So AI seems to be big as part of your strategy. Can you kind of tie that all together for us?

Greg Pavlik:

Yeah. I love the phrase you just use system of intelligence. A lot of the ways we think about this is that ultimately we want the cloud to be a continuous learning system for our customers. And because we have apps with business data, underlying that is this common machine learning infrastructure that really helps not only to create effective models, but it also curates the data sets that are used to drive those models. Core business entities features that might be used in the context, maybe even transparently in the context of the SaaS portfolio, but that data can be used again and again by the customer to build other and better models in directly in a data science context or just by using some of our prepackaged AI services. So I think about this as the cloud becomes, in a sense, not just a provider of virtualized compute and networking capabilities, but it also becomes a way to provide an inter-weaved infrastructure that makes the business better, meaning it gives better results.

It understands the nature of your particular business. The more you use each of the different capabilities across the portfolio, so that the AI services can feed the models on the SaaS side and make them better. The SAS, whether it be with your HR or ERP your financials, it can feed data, it can feed models that make the AI services stronger. And this virtual feedback loop becomes a mechanism for businesses to be able to get more accurate results, more proximity, to the kinds of questions that they want good answers to than would be possible otherwise. I think it's actually one of the core differentiators of Oracle in fact, is that we're able to put steel threads through all these different components of our portfolio in the cloud, and then turn that around and try and continually give more and more value to the end customer. But that's a big deal for us, for sure.

Daniel Newman:

Yeah. It seems that we're going to see a continued growth and investment to see all data, be able to contribute to everything from how we manage a process in our business, to how we keep uptime and run keep the businesses running. I mean in this current, we talked a little bit about the cloud, but in just the current kind of macro environment, to me cloud is going to become a major investment, but also maximization of data. Companies have to figure out at the core of their business, a how to take current investments, make them work better.

AI is going to be a pretty significant contributor there. And then you have to say, "Hey, where are all the inefficiencies in the business?" Oracle, you guys have a mountain of data to help



companies understand that, on the process side and on the actual business side and the ERP, and the SCM and the HCM, there's a lot of acronyms for what, what you do, but being able to kind of like a third layer in many ways, that becomes AI to add intelligence, to add intelligence, to every part of the business, how it runs.

And then again, how it, how it integrates internally with employees and connects to customers. The tie together is really significant Greg, and I see this as a massive investment right now, as companies trying to figure out how to deal with talent shortages and at the same time, how to deal with tougher macroeconomic environments.

Greg Pavlik:

Well, yeah. The more that you can get the cloud to leverage AI to help you get results to core business questions, without having to put in all the effort in terms of custom data science, custom analytic works that, I mean, it's exactly the sweet spot I think businesses want to go to. What's interesting is take simple example, you load up a database into Oracle cloud infrastructure. We have data catalog that can automatically help you understand better the data that you're provisioning into the cloud. We can also start to do things like introspect the metadata, see that there's things like say time series data, and then start to automatically apply machine learning models for forecasting.

So imagine that having to be sales data, and we notice trends within the sales data, and we can tell you what are the drivers for successful revenue outcomes? And we can make predictions available immediately based on, data that we've never seen before, but it happens to be in this environment where we've done this deep plumbing with the machine learning capabilities and can turn around and quickly help get insights that weren't possible even just a few years ago.

Daniel Newman:

Yeah. It's a fairly good place to land here, but I'm going to give you one more quick question, cause I'd love to just pick your brain on before we set you off into the sunset and thanks so much, Greg, for your time here at our, at our summit. It's great to hear from you. Where does this go? How fast does this accelerate? Obviously we're seeing this sort of edge to cloud acceleration. We're seeing a on-Prem to cloud acceleration in some ways, what's the tipping point here? What do you sort of see the next year looking like?

Greg Pavlik:

I really look at it as a series of step functions and it feels like it's every two years, there's another substantial click up the ladder of the step functions. Whether that winds up ultimately being that the rate of change is linear, or it starts to look like an exponential set of changes because of these compounding effects. It's difficult to predict how that will play out over time. But if I just look back over the last five years, six years, it really feels like there's an incremental adjustment, that's occurring that's taking us into this world that's going to be much more distributed, much more intelligent, and much closer to getting the business, to be able to get value out of their assets. Whether that be applications or data, almost in a turnkey fashion.

Daniel Newman:

There, we have it, Greg, I want to thank you so much for joining us here at this at The Six Five Summit, 2022. I think there's going to be a lot to watch. I wish you and your team a ton of success in the coming year. It's a competitive space, but it's an exciting one because the TAM keeps growing. The competition drives a ton of innovation, and I love watching what you, your



competitors, and your entire ecosystem continue to do to bring technology, democratize it and make all the world run more efficiently. So we'll see you again really soon.

Greg Pavlik:

All right. Appreciate it. Thanks a lot.