Company Participants

- Mandeep Singh, Software Analyst
- Mickey North Rizza, Program Vice President
- Robert Mahowald, Group Vice President

Presentation

Mandeep Singh {BIO 15014535 <GO>}

Good morning, everyone. My name is Mandeep Singh. I'm the Software Analyst at Bloomberg Intelligence. With me today are IDC Analysts, Mickey North Rizza and Robert Mahowald. And we'll be talking about a theme on Cloud M&A.

A couple of housekeeping notes. Today's presentation will be recorded and available for playback. At the bottom of the slide window, you will notice that you can adjust volume and maximize your screen. Feel free to ask a question by submitting one to the right of the slides, we will address questions at the conclusion of the presentation.

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So without further ado, I'll hand it over to Mickey and Robert for a presentation, that will be followed by questions. Mickey?

Mickey North Rizza {BIO 17644459 <GO>}

Thanks, Mandeep; and hello, everyone. Thanks for joining us today. So, today we want to talk to you about the cloud and where we see everything going. Myself and Robert work together to help bring this information to our clients at IDC. So, the first thing I'd like you to understand is, we see the cloud as part of what we call The Third Platform, and it's also tied into mobility, the social side of the business in the Data and the Analytics. And I think the important part here for you to understand is, cloud is the new baseline of what you need to actually bring change and where you're going from an overall perspective.

When we look at what I cover the areas of enterprise applications, we find that, you know, the operating model has really shifted from on-premises and license and maintenance support over to the cloud in a subscription standpoint. And as you can

see, we expect that trend to continue, but we also see that the reason that you're going to need that cloud and what you're going to do with it, it's changing as well.

We really see that the information and what comes from the data sets and the information that's out in the external world, the IoT, the Internet of Things, Artificial Intelligence, Cognitive, there's a whole host of things, they're all driving the ability for cloud to even do more than it has in the past.

So as we talk about this, I'd like you to think about the cloud as your baseline to get you to that next step and you're going to see a lot of change that's already occurred, but you're going to see it continuing on this path at even a quicker pace than we've seen already.

Robert, I'm going to move to the next slide here.

Robert Mahowald {BIO 3499020 <GO>}

Yes. So as Mickey said, cloud is the -- is definitely the -- and so products that are operationalized to be sold as cloud services are definitely the fast growers in software. So, if we look at the, you know, worldwide software market from 2015, the growth was about 4.75%.

I think the growth, you know, maintenance plus subscription -- plus license over the next five years is expected to have a CAGR of just a little bit over that, just a little over 5.25%, largely driven by a staying power among the ability of SAP and Oracle and others to keep companies on maintenance and on enterprise user license agreements. So that's kind of what's sort of driving the high-end of software.

The remainder is our SaaS services and cloud services. So anything as a software that can be operationalized to be delivered as a service, we will call cloud software broadly. And depending on capability and market that it's sold into, the growth rates there over the next five years are anywhere from 90% [ph] to about 85%, so, really significant. I would say on the low-end our very slow growth areas like -- maybe financial planning or some manufacturing apps, and on the high-end data management analytics are suiting the fast growers.

This is a slide that we use to characterize the cloud economy. So this is the ways in which -- these are the ways in which vendors, anybody who wants to interact with the cloud economy can make money. On the left side is kind of what we all know and think of is, core cloud services. So I've built something, I've serviced and operationalized it, how I do so is part of my cost of goods sold.

And I'm selling an all-in subscription cloud service, and there are many, many forms of this from those that are metered by the gigabit or by the minute or even by the second. In the case it's in [ph] like AWS Lambda, all the way up to software, application software I should say, which is really to most customers looks -- doesn't feel so much, but it looks a lot like packaged software, because here, in a way that it's

paid for, because it's (Technical Difficulty) you're paying for perhaps a year upfront, and you might be paying for more than that and then you might be paying a year at a time.

So nothing like -- quite like the granular metered services that we think about when we think about cloud more broadly. The application providers have really sort of engineered a system that works for them. And I would say that, that also it becomes very true when you're talking about companies like SAP or Oracle, who have been using things like Subscription Credit in the place of payment from customers who've got residual maintenance due on their contracts and those companies who want to switch them over to their SaaS version of whatever software it is. Maybe it's E-Business Suite and they want to maintain them on the same kind of fixed schedule. And that benefits both, you know, buyer and seller in some degrees equally, because it provides a lot of predictability for the buyer. So, that's IT cloud services in the left side and all the things that you think about when you think about cloud services are there.

The cloud components in the middle is the slide is what we call the arms dealer equation. And it's been looking at all of the markets that (inaudible) and are -- familiar with IDC are Black Books, and it's clearly everything that we cover all across the information technology and communications world, and thinking about how are these products being made to work well in a cloud (Technical Difficulty). So, whether they're open from all the tenancy, you know, whether they're hosted, you know, whether they're designed for Grid Compute (inaudible), or if they are IT service management products, for example, they're really, really important in this multi-cloud world.

Do they have the ability to tap (Technical Difficulty) heterogeneous assets and do things like CMDB and (Technical Difficulty) change management and governance of assets that live in different places? So, IDC is looking at the world of hardware, software and services sold into enterprises as they build out enterprise private cloud and into service providers and into ISVs of all types, and saying, you know, what is it?

Is there something functionally different about this product, no matter what the sort of the market structure is and what the vendor says it is that makes it right, and customers are buying it with the intention of deploying it and what we would call a cloud, perhaps a private cloud as an enterprise that has got, you know, virtualization and automation and scripting, et cetera.

And that is -- that's what we think of as a private cloud is the product being used in that way. So that's a huge -- that's a huge market, and I would say sort of a little bit different from the IT cloud services market, where you're going to have both lift and shift, you're going to have a lot of customers saying, you know, we want to move to something that's very much the same as what we were doing before.

There's a lot of lift as well when you've got different categories of software that are brought together by one provider and being sold as a service to a customer and that

customer is getting more than they probably would have gotten otherwise if they had bought those pieces separately, and of course they're paying more for it, and so there's more -- more lifts there.

In the cloud components world, it's really kind of a pie that's slowly turning from one slice into two slices, and/or probably staying at kind of a big two-slice world for a long time as we've got a set of components that are serving traditional, what we would call first and second platform businesses and parts of businesses. And we've got some that are being sold for cloud delivery and, you know, cloud instantiation. So that's the middle segment of the cloud economy slide.

On the right, we've got management professional services, so there is everything there from network consulting, business consulting, systems integration, more like [ph] across the board, domain-based and technology-based. So, everything that you do, you need to do to either get your customers on the road to cloud, or if you're an ISV, for example, or you're a big SI or just to help your customers to continue to use and optimize their consumption of public and virtual hosted private cloud services. So, for example, there is a lot of -- as we all know, there's a lot of day one, what I would call, day one systems integration stuff that has to be done to get a company to figure out, rationalize the portfolio, figure out what provides value to the company, what continues to provide value based on utilization, what provides value to run locally and what might -- if it doesn't provide value to run locally, what might still provide value if I ran it some places also, if I ran it as a provider.

And going through that equation, that kind of day one road to cloud stuff is really in this -- is in this space, but also more and more to a greater extent, especially the global SIs have figured out that the real opportunity is helping customers with ongoing integration and optimization of their consumption of cloud services. We're moving to a world where even at the infrastructure level, I guess probably predominantly mostly at the infrastructure level, but somewhere in the middle tier as well, it's -- we're going to be able to do more operational arbitrage around cost and function in -- among providers.

There are enough providers of basic core capabilities coming into the market and there are a handful of engines that are coming up that are making that arbitrage possible, that kind of stuff, that arbitrage and the optimization is being heavily leveraged by the big SIs, who are helping their mid-size and large companies figure out how to use the cloud and consume things well and work well. We call those maturing cloud services, because they've been around for a while, they are becoming more well- understood and people who kind of get how to make money out of them.

I would say on the emerging side, the Industry Cloud Services, Industry Cloud is a topic that IDC has been covering for about two years. We're putting a lot of time and effort into this -- into it this year. I'd just briefly say that it's -- it's centered around real center of gravity players in their industries. And if you look at some of the names here, you'll see that some of these companies are either early into certain niche

markets or else they're industry leaders in their markets whether it's, you know, pharma, manufacturing, automotive, raw materials, you know, biotech, et cetera.

And the notion here is that -- is that, an industry cloud is not only a place to do what you would do in a platform-as-a-service, everything from hosting data, doing analytics and doing transactions, but it's also a place that can provide the industry-specific regulatory compliance, the governance, and even in some cases like AWS GovCloud, the indemnification. So, essentially the assurance behind saying, we will ensure that to the limits of our SLA, you -- you will not be sued or you will not be found as default, or you will not be made open to a damaging audit for the technical assets that we're providing for you. So, it's really over and above, typically what you'd get from any of the providers of IT cloud services and even from the Professional Managed Services to some degree. So Industry Cloud is something that we think is really a big deal.

I'd say the second big aspect of Industry Cloud, that we've spent too much time on it is that, that is the platform that these companies have built for their customers and others, even the industry peers as well, to be able to build new custom code, durable code to be sold, to be consumed.

So it also is becoming more of a marketplace for like-minded companies that -- they understand that the most important thing to them is not the technology that's kind of the table stakes. The most important thing to them is being in compliance and having very unique set software assets that they can access, but they know work alongside the -- that, you know, the core products they are using, and that's kind of the way Industry Cloud takes us there.

So next slide, please. Okay, Mickey?

Mickey North Rizza {BIO 17644459 <GO>}

So, on this slide -- yes, on this slide, we're looking at the number of acquisitions in cloud software. So, if you look at this from an overall perspective, you can see it's grown very rapidly. Something to consider here is that the cloud acquisitions have been two to three to one depending upon what area you're looking at from on-premises software. And I think that Robert did a great job about describing that earlier on what the market looks like and how more and more companies are going into that cloud.

So, you know, if I look at it and I look at some of the top companies in the cloud just in 2016 Salesforce, which was eight, is now nine with their acquisition of Krux yesterday, the announcement of that on data management side. You'll also see Oracle with seven, Accenture and Google with six, Microsoft with six, Cisco with five, IBM with five, the Amazon with four, and Apple with four.

So, you know, if I just pick on, you know, a few out of the top 20 there. If I really look at this, what you're seeing when you look at the trends here, there's an awful lot of the cloud purchases, you see a lot into AI, data sets, anything from the digital

transformation world that's taking on beyond that Third Platform, because they've got the cloud basic or they are adding more cloud infrastructure in there, but now, they're getting to the next standpoint to say what are the information pieces we need and the other platform pieces we need to round out our offering. And if I think about that, you know, Robert did a great job on that last slide talking about the cloud services and how that whole emerging area is coming up.

I think if somebody like Ford and Microsoft, who invested in Pivotal. And basically, you know, Pivotal is a connected drivers organization and they're bringing in automation aspect and they represent the cloud as well. So you're starting to see companies come together you may not have thought about in the past to really make a difference in their end products that they're selling and bring more to the consumer market from an overall aspect. So, just from a quick snapshot, the acquisitions in the cloud are becoming greater and greater and you can see that by this chart here.

Let's see here. Next slide, Robert?

Robert Mahowald {BIO 3499020 <GO>}

Okay, great. And this might be hard to see, because it was meant to be a build over other slide, but essentially this is -- the notion here was just talk about some of the reasons why companies acquire what they acquire. And clearly, in our experience and looking at software broadly, the acquirees have sort of focused on a mix of both traditional packaged software and SaaS/cloud services. But I would say that in the last couple of years particularly -- and what drives that is simply the desire to buy capability, net new capability.

And if you're buying non-cloud capability and you understand how the software works very well, then you can get it for cheaper, the multiple is going to be far less than a fully operationalized cloud service with a run rate of subscribers under its wings. And so, you know, cost -- cost and capability are pretty much the key drivers for what decides -- what kind of company they buy, you know, for business relationships, partnerships, and lots of things there, but really that's it.

I would note that in the last two or so years, and I think our data bear this out. The desire to buy a company that has some what we call cloud shops is much stronger. I think the sense of urgency has come to especially some of our larger vendors like Oracle and Microsoft, IBM and SAP particularly as they understand that really the opportunity in a big way is, when we think about the -- and sort of on the left side of that -- that chart I had previously.

If I want to be a complete cloud company, then what that means is, I've got to operationalize a set of services. I've got a consumer hardware and software, I've got to sort of orient my professional services operation, and I've got to have a full range of developer services, application services, and self-service infrastructure services, network compute and storage.

And to do that, I need to -- I'm not going to have necessarily a lot of differentiators by having that, but I need to get to that level of the ability to compete at that total cloud level, because, you know, IDC believes that there is a great sense of urgency from these customers, and also from these vendors I should say and also from their customers to rationalize the portfolio and move a lot of stuff to cloud properties as quickly as possible.

Certainly, we've seen from Amazon the desire to -- if they cut the prices on things like their Amazon Snowball, three times in the last 18 months trying to get customers to over massive volumes of data to the cloud. They've also made free in many cases their data streaming products, so you can move certain amount of data on a, you know, on a given day to their cloud for operational analysis or what have you or for long-term storage.

So, the desire to get customers to move is, there's a lot of urgency right now. I think the desire to buy and acquire software capability to be able to have that total cloud is very strong, because I think there's going to be a point where, you know, depending on how some of these big customers feel about of our strategic safety around focusing all (inaudible) on one vendor and there are some risks there for sure. The opportunity to get more and more of that IT spend pie, I think is larger, if you can, one, get your customers to navigate that transition to cloud, say they are customers of, say, core SAP applications, take care of that.

And then, also get those customers to start building on the platform, putting data on the platform, start using adjacent partner applications on the platform, and what you find is there's tremendous amount of gravity around that customer activity in the platform and so buying the right kind of capability becomes so much more important.

So, when we say here key messages, you know, it's round out the functional portfolio and run the business cloud app. So things that are really important to customers make sure that you need to ideally build something with, you know, with functional parity to what your customers' experience is in packaged applications and that's often very, very difficult.

And two, to figure out what do we need to do to complete a set of workflows that are important to our customers. If we only sell this one thing before, so say it was, you know, say it was, you know, talent management, do we need to do the things like review management, social sourcing of new capability, all those other pieces, and those are the -- it's kind of those small point pieces that we see really being bought that are most important right now.

Normalize the balance sheet is also super important, when we report on Oracle's quarter -- last quarter 80% growth in the SaaS portfolio, but the organic growth around the Fusion portfolio is really below 40%. So, you know, really less than half the growth there, and even more than that, when you consider the pipeline.

And the message there is that, Oracle figured out, you know, early on that they needed to have -- they need to have Taleo and Eloqua and RightNow, and all the other companies that they've bought that had a substantial customer stream that help to normalize the balance sheet as they make a big transition and allows them to put a good face on an otherwise poor quarter where hardware lost 12% and software licenses were, I think a 0.5% under par and maintenance was about 9%. So, it allows them to lead with SaaS and normalize the balance sheet by having some of these folks.

I would just say, you know, that the point this slide was written, this slide is a little of a year old. This is -- there are 45 plus SaaS pure-plays with 25 million -- we're all potential targets. I would say with the level of M&A that Mickey went through and that we track all the time, the number is actually quite a bit more. It's probably, you know, we track at IDC, you know, a product we call CloudShare. We track about 2,400 as-a-service vendors around the world. There are about 400 that made a little more than $20 million in 2015. But the big SaaS properties, independent SaaS properties with the exception of Workday and a couple of others have all been snapped up heretofore.

And so, I think, again, it's sort of been -- but the next wave of M&A will be going very much down market into what we would call the long tail of SaaS, we're going to talk about that in a minute, investigating, you know, what's there by functional capability, by geography, you know, the management team, the partners, et cetera, and kicking the tires and really looking at companies that will be bought for a lower multiple and are not big names yet, for sure.

So Mickey, do you want to take a slide or do you want me to --

Mickey North Rizza {BIO 17644459 <GO>}

Nope, go ahead. You are on a roll here, and I moved over to it so you could see the long tail and you can start focusing in on that, because you really talked about most of the markets.

Robert Mahowald {BIO 3499020 <GO>}

Sure, yes, absolutely. So, you know, typically in software markets, we find, you know, competitors one, two and three in that pecking order and then another, right? And so depending on how mature the market is that other, you know, can be 20% or it can be 60%. I think here we're looking at another here that is about 40% or so.

It's for a -- it's for a market with a lot of variability. We've got some mature segments of cloud software and some immature segments of cloud software and so that makes a lot of sense. So cloud software for IDC is Software-as-a-Service, so that is -- that includes applications and system infrastructure software, so things like storage software, archiving IT service management, security, et cetera, that's all part of SaaS.

And you see because -- if you kind of look at the middle of the slide, applications-as-a-service, SIS as a service and also included in cloud software for IDC is platform-as-a-service, and so the platform-as-a-service piece is there. And you can see the growth over time and in particular see the importance to these key incumbent vendors. These are, you know, these are -- this is a key set of incumbent vendors.

And I think you could probably take into it out of this picture a little bit because with the exception of QuickBase, they're pretty much all in the financial management application space, and they're, you know, they're about (Technical Difficulty) sales to consumers.

So just think about everybody else here and think about the rush and the urgency they have to all of a sudden serve more and more different kinds of functional pieces of their customers' technical capability needs. So, you know, for a company like Salesforce, of course, or even more to the point, Microsoft, of course, applications are big, for Oracle, applications have been a huge thing for them these past 10 or so years. But pushing into other markets like for Oracle, you know, operationalizing their Enterprise Business Suite, so their ITSM set of products. As a Cloud Business Suite, it's something that allows their customers (Technical Difficulty) multi-cloud resource management and governance, that's really big for them.

Obviously that, you know, the Java Developer Cloud, building out a fully fledged as they just announced at the last OpenWorld, a fully fledged infrastructure-as-a-service where customers can take granular bites on a self-service basis from a computing storage set of products.

That kind of stuff -- so that kind of -- the desire to show the slide is to show over time, how this really flushes out in the diversity some of the big players, desire to have and we think will have is that we go forward in time to take out -- to get more and more of that kind of functional diversity.

If you look at the long tail defined by change, so we, you know, we do a lot of work, modeling work around how many ISVs are there in the world. So, an ISV just defined as a -- in this case, it's a cloud ISV, right? So there are about 25,000 ISVs, you know, very broadly, about -- probably about 5,500 of them are as-a-service ISV. So they make some of their money, some or most or all of their money by delivering a fully operationalized subscription service to customers.

And when you look at the entry into the market, I mean, there is really a long tail for a new -- new in start-up. There's also, for sure, some companies that have been, you know, maybe, stuck in an O&M space or maybe a Third Platform space, where they're really serving an industry-specific customer, particularly, you know, so say it, maybe the point of sales software, they haven't really needed to have any kind of as-a- service revenue.

And so that -- you know, so now that they have some, but we're going to talk about what that means for them in the next slide, that's a big deal for them, right, to have

that. And if you look at some of these stats here, I mean you all can read as well as I can, they enter life with market enablers, you know, there are a whole set of start-up companies who've glommed on universities, glommed onto the big ISVs, and middleware and database providers, and that isn't a good idea, and they should say, you know, we want to grow a business and we want to be a SaaS business.

We know that's the cheap way to get access to infrastructure. So that's really the -- so we do a lot of work on figuring out how does a small business get started? What kind of business is it functionally? What's the big driving demand? Where do they get the tools and the assets they need to start the business, in many cases from, you know, from IBM or Oracle or Microsoft, and even Amazon, it's, you know, we give you the tools to create and grow your business, and once you get a run rate there's a profit- sharing kind of model, and then as you get bigger things change.

And so when we look at its splitting itself, the big M&A is in sort of in the middle when some of these companies start to get. They understand how to do business. They've got some customers, they've reached a certain run rate and they're looking around and they have difficulty growing to the next level. That's when they start to either entertain offers, they start to have more conversations, that may start out as core partnerships with some of these big database middleware distribution vendors, and then that's kind of where we think the next wave of M&A is going to come from.

There's a lot of -- in the big companies really you've got a very clear intention of what you're doing. I'm buying a marquee name that has got a set of customers that hopefully is not completely, you know, replicative of what I've been selling into for a long time, and you provide a functionality that we, you know, we need time to -- we need speed to market, we can't really hope to build right now. So, we've got a lot more work we do around the long tail and software.

And what -- and how the entire software universe changes over time with these net new smaller companies coming in and different degrees of hybrid, and by hybrid here we're talking specifically about the kind of revenue that these companies make, how diverse the revenue stream is, we'll be happy to talk with Bloomberg about and to share some more there.

Next slide. So this is a slide that we do a lot of work on and update over time. And I think the key thing to understand is (Technical Difficulty) build is, when you look at cloud software revenue broadly, for vendors with more than 90% cloud, there is a pretty large growth trajectory.

This is just for the pieces of the portfolio that are delivered as-a-service, right? So from all vendors (Technical Difficulty) below that you see -- you see that it is a little bit lower, right? And so this is from, you know, this could be from companies or list of companies who may make only a small amount of their revenue from delivering cloud services.

So as I remind people all the time, a company even with substantial as-a-service revenues like Microsoft, for example, still probably makes less than 7% of their total revenue from delivering cloud services. That's just the way it is. And I think it represents the relatively slow nature of change in our industry.

I think in all of the software markets that Mickey and I look at, even by 2020, we don't see any of them getting more than 22%, 23% of their revenue coming from buying subscription services, the rest of it is all from various, what we call, first and second platform services. And there is huge installed bases out there that are slow to churn and slow to be convinced as a need and requirement, necessity and value of making that transition, so, that's there.

If you look at packaged software revenue from all vendors, as I mentioned before, the CAGR through in this seven-year periods, it's about 5.5%. The interesting and important thing to understand here is that -- is that companies who don't have any as- a-service revenue stream. So of the, you know, the companies that IDC tracks more broadly in our software tracker a little over 5,000 companies. When we do the work to understand what do we think their share of the pie is, the growth pie is? If they don't have any as-a-service revenue and we project by 2020, it's less than 1%.

So, of the -- basically the growth pie, again, it's different by every, you know, functional market that we're in, whether it's, you know, database or it's hosting or it's, you know, ERP, or what have you, whatever the growth is in that market, as an average, those companies who don't make any of their money through as-a-service delivery have less than 1% -- have a shot at less than 1% of that growth over time.

Now, I share this with a lot of vendor clients, because it's important for them to understand that, you know, not only either strong and compelling reasons that we're not going to go through here for their customers to want to move to cloud and not have to do things like update and have a, you know, single set of capability over the same time to all of their internal customers et cetera.

It also mean there is also significant benefits for the provider. So, you know, they are significant in telling and companies like Oracle that are moving to, you know, working very, very hard and moving to a higher and higher gross margin on their as-a- service portfolio, most companies that we look at are around 40%, Oracle is around 65%, and their goal is to move toward 80% gross margin on their as-a-service offerings.

Companies that have figured out how to operationalize their services and get very efficient about how they deliver, what they deliver, have understood that, one, this was coming like a fast train; two, we need to get our shops and understand how this works in our world; and three, our chance to take some of that growth is greatly diminished if we don't do this now and do the hard work now, whether it's through merger or whether it's through, you know, through building our own set of services and walking our customers through the hard steps to get there.

Boards understand this, the C-Suite understands this (Technical Difficulty) understand that. And so, I think it -- there is very few of our vendor customers who don't understand this message now.

Mandeep Singh {BIO 15014535 <GO>}

Yes, that's great. I thought that was a fascinating conversation and you know just the whole aspect of long tail of cloud, I think, it just helps you put things in perspective as to which way things are going in cloud. I mean, if I recall correctly that this whole thing started when private equity took out this -- right, they bought Cvent and Marketo, Vista Equity Partners bought these two companies back early in the year.

And the idea was not very clear at that point of time, you know, which way this M&A wave is going and why they were making these acquisitions because these companies didn't have a huge cash flow or -- and then M&A really picked up and we saw some mega deals this year. Microsoft bought -- buying LinkedIn, Salesforce buying Demandware and Oracle buying NetSuite. So, I just -- I'm curious what is driving the deal optimism this year, like, we have seen much bigger deals this year than we have seen in cloud so far. So what -- do you guys have like any kind of notes around or reasons around why we are seeing bigger deals this year?

Robert Mahowald {BIO 3499020 <GO>}

Yes, let me -- I'll give my answer and then Mickey, I'm sure, has got some good thoughts here too. So, yes, you know, I would say that this is the last opportunity to snap up a big successful SaaS property, no matter what the multiple is and take out a set of competition.

I think that, you know, for a long time Oracle, you know, used -- Larry Ellison used the stage at OpenWorld to make fun of Salesforce, and I don't think anybody is making fun of Salesforce anymore. They figured out how to diversify their product set and how to sell into pretty much all parts of the organization, not just the sales suite. I think that -- so it's driven by fear and then -- I think fear that somebody else will simply step in and buy them if they don't.

I know that, for example, when Oracle bought NetSuite, there were several other bidders who just had to sort of drop out. I think NetSuite was seen as a company that was successfully managed and it was, you know, it was worth spending, you know, 3.5 billion or whatever was spent on NetSuite, because you know, you got a NetSuite shareholder a set of big established customers who are gaga for NetSuite. And NetSuite, by the way, figured out how to bring partners, you know, like FinancialForce and Namely who brought other pieces of the pie functionally that they couldn't bring. That I think instilled some fear in the hearts of the big apps providers and I think drive some of the pressure to acquire somebody big and spend a lot of money as you point out.

I don't know, I don't really think other than Workday, I don't know of anybody really big, real valuable property out there in the core enterprise application space who we

command now. I would say, of course, Salesforce will, but I think Salesforce has, maybe reached a point in the stratosphere where an outright buy would be pretty darn difficult, I think a merger is more likely.

Mickey North Rizza {BIO 17644459 <GO>}

Yes.

Mandeep Singh {BIO 15014535 <GO>}

Great.

Mickey North Rizza {BIO 17644459 <GO>}

Yes. And I would agree as well. I'd only add one caveat to that. I think as much as they're buying the next big thing and trying to beat the competition, I also think they are trying to add two things. One, the customer side of it and second is that product side, and they're trying to use that myriad and then bring more innovation into the marketplace to keep grabbing more and more market share.

So, I really think it's about the shift from just pure operational aspects to bringing more information and doing a better job and capitalizing on that quicker. You know, if you think about it in the marketplace, the rate of change based on technology right now and what it's doing to the software packages and all types of industries in general is huge and it's much more significant than it has been over the last 20, 30 and, let's say, 40 years.

Mandeep Singh {BIO 15014535 <GO>}

Great. So on that topic since you said the companies, the larger guys are looking to acquire market share, you know, by basically like buying the smaller cloud guys. What areas in enterprise software do you think are right for consolidation at this point? And maybe, if you can talk specifically about specific segments, you know, that you see where there is more need for consolidation?

Mickey North Rizza {BIO 17644459 <GO>}

I think finance is one area. There's still an awful lot of on-prem finance and there is a few cloud providers out there. HCM has really taken off, procurement is one that's taken off and has a lot more consolidation to go and it's probably very behind the times and on the areas that it needs to be in at this point of time, enterprise asset management, you're going to see that continue, that has already gone through quite a bit, order management has some, and then I guess CRM is a hot topic obviously with everything that Salesforce has been doing.

Robert, did you have any other thoughts, supply chain would you want to?

Robert Mahowald {BIO 3499020 <GO>}

Yes. I would say, you know, obviously, we've got some -- we've got a great slide, I wish I add in here. We've got some, what we call, functional markets, so the most atomic size market that we have. So, for example, you know, treasury and risk is inside of financial management, which is inside of ERP, which is inside of application.

So, at the most granular level, there are definitely niche players who provide a piece of the portfolio that -- that slightly bigger companies like Infor, for example, would -- or Epicor would love to be able to bring to table for the customers, but they have not been able to afford to build it before, because they haven't had enough customers in that space.

I think that the thought was a couple or three years ago, well, we just approached that space through partnership. When a customer ask for this, say for example, they are doing board operations and we don't have a board operations SaaS service, but there are lots of little players that have that, who does pick a partner among them.

I think it's been seeing gradually as less interesting for mid-size and large organizations to do the enterprise application integration and stitch together from various providers a set of SLAs or maybe a set of data integration or process integration. I think they're more willing to say you know what? As much as this partnership is okay and we get the capability we need, we would really like to see this capability come through one dashboard in one place. And so, we do make a tactical integration or something along those lines.

And I think with some of the messages that we're hearing is, can you buy somebody or else build out this capability, so that we can have these all in one place. And I think even mid-size providers, SaaS providers and ERP more broadly are starting to say, we need to think about buying this capability that we don't know -- now understand, because we lo and behold, we started out really small as any SaaS provider does and we've grown to a size and now we've got more complex mid-sized and large customers, who've got more complex needs and we need to acquire this capability.

So some of those niche areas at the functional market level are really big. I would say, the last piece, I would talk about are in -- our industry applications, that companies like, you know, Epicor and Oracle and Infor particularly -- and NetSuite had this as well. I think NetSuite built out a pretty successful offering in retail apparel, for example, and they made sequels that they had spent the last two years building out other vertical practices.

I think the desire to get operations, manufacturing, resource, supply chain, applications that are really in -- that really have a lot of functional domain expertise and really were designed for particular industry, that's really an under-penetrated segment in terms of the amount of SaaS revenue that is driven by these guys, and they sort of started small and they've stayed small, because they're sort of in one relatively niche space and I think as they desire to get bigger and to the broader

world, I think a set of vendors that's above them and does, you know, though it does more broad work is poised to buy more and more of that capability and serve their industry customers.

Mandeep Singh {BIO 15014535 <GO>}

What about security? I mean, we saw one big deal this year is Symantec, Blue Coat, but that wasn't pure-play cloud deal. Still there are so many point solution providers in the security space, do you think that we're going to see some activity over there?

Robert Mahowald {BIO 3499020 <GO>}

You know, it's a really good question. I would say, it's possible, I'll give you a couple of answers on that. One is, I think, when you ask customers, enterprise customers, who is responsible for security outside of your firewall, for example, you know, network transport, firewall, and then things like, you know, VPN transporter, encrypted endpoint to your virtual private cloud.

For example, it sits at a provider, there is a lot of desire to push off network security on your big ISP or VPN provider and to push off cloud security on your -- either your SaaS provider or your core set of cloud providers, whether it's Rackspace, Google, Microsoft, Amazon, SoftLayer, IBM.

And so to say, well, this is what happens inside of the firewall, it's something we got to add some visibility into it, but it's not really my (Technical Difficulty). I think that that's changing a little bit as companies realize that they live in a multi- cloud world and the way they watch packets on-site is, it's got to be managed in a uniform way and the SLAs of their core set of providers outside of the firewall don't really cover them where they need to be covered.

So, I think if you look at as a set of, you know, sort of the DSN, I'm sorry, DNS providers and you know, in core malware providers, I think that, you know, they're going to be -- there's a lot of capability to buy that, but I think the really big planned security is around -- is around that -- is around that network transport security and network visibility of the whole network. So, for players like Akamai and Dyn, for example, maybe, Layer 9, maybe F5 Networks. Those are the kind of players, I think that have the kind of broad picture of security that -- just to me, it seems top of mind to me for companies who are now trying to push into a multi-cloud world and build the management networks soup to nuts.

Mandeep Singh {BIO 15014535 <GO>}

Okay. And just a reminder for everyone, you can submit a question through the webinar link. So please feel free to do that. We still have 10 more minutes. So, I just want to move on to IT services. What kind of deals should we expect over there, because Accenture has been very acquisitive in the last one year. So, do you see any trends in that part?

Robert Mahowald {BIO 3499020 <GO>}

Yes.

Mickey North Rizza {BIO 17644459 <GO>}

So, this is Mickey. So we work with quite a few analysts who look into this space, and in conversations with them, I think the most important thing here is that the services guys are buying as much as they can into areas that they need and just bringing on the workforce that they need.

When you look at some of the numbers, you know, some of the things we have found is that, you know, Accenture has had the greatest acquisition since 2012 and the number of acquisitions they've had. But what's really interesting as you look at Deloitte, and over the past, I guess, 10, 15 months, they've had quite a bit of hit just in an acquisition phase. But when you really look at it, Accenture seems to be meeting the list with a long suite of what they've actually been buying.

So, I think you're going to find this, it's going to continue, because they need more and more help to help the companies as they move forward into these new acquisitions of their technology, not only just bringing that out, but also understanding how their business processes are going to change and really see this continue to evolve.

Robert, I don't know if you had any other thoughts on that?

Robert Mahowald {BIO 3499020 <GO>}

Yes. I think, as all these companies, all the GSIs particularly start to use somebody else as their back-end. So in the case of Amazon -- or in the case of Accenture with Amazon, but -- and really -- I should really -- I should say more spread across providers, because they've parked their assets elsewhere. I think that the focus changes from people who do operations to developers, some people who've got domain capability, that the practices that they have in Big Data and DX, for example, I think to my mind, what they're buying is people who know how to do coding, and who have got, you know, thought leadership expertise and understand where markets are moving.

And so to buy a domain expert company is, I think, really -- somebody who understands or maybe it's a Fed space, maybe it's a manufacturing, maybe it's retail, really, really well, has some durable code that they can sell and, you know, I think it's not even so important anymore whether you've got customers or whether, you know, how you've operationalized, that's not going to matter so much anymore. They don't need people who really run physical assets anymore.

And so I think that's -- I expect to see the order of magnitude and purchases to be smaller to buy, just, you know, smaller teams with functional domain experience who

have got coding ability and who understand domains really well, kind of like I -- we talked about a little bit in the software side, what's going to be acquired, I think it's really the domain and the industry players who are the biggest.

Mandeep Singh {BIO 15014535 <GO>}

Great. So moving on, you mentioned about Industry Clouds and I think there has been a couple of big success stories, Veeva being one in terms of how they have clubbed together a functional area with analytics and regulatory compliance and really they have shown steady growth over the last few years, but in terms of their addressable market, I mean, they're going to hit a wall at some point. So, how do you think that Industry Cloud consolidation is going to take place in the near-term and the long-term?

Robert Mahowald {BIO 3499020 <GO>}

Yes. To me, I think, we're actually on the other side of the curve, I think we're really at a growth curve where we're going to see more diversity of players, you know, across industries start to emerge, I think where the consolidation starts to happen, and it probably will happen not so much reflexively.

But as growth happens, the consolidation will happen and I think players that are not really center of gravity in their industries will start to edge out and see the wisdom of glomming onto somebody's else's cloud. That's where that sort of the virtuous cycle of (Technical Difficulty) demand is, that's where developers will want to be, and that's where a lot of customers will place their bets.

So, I would say the consolidation will come from (Technical Difficulty) winnowing out of among this -- companies that are smaller, but hope to be big and hope to be more center of gravity in their industry by, you know, by building Industry Cloud, and we'll see more companies that really have that kind of a, you know, huge place in their customers' life and huge place in the industry start to sell their Industry Cloud (Technical Difficulty) to not be so much concerned about the technical aspects of the Industry Cloud, which after all will be sort of table stakes from the past perspective, but once you understand that that's really where the action is, we always say, you know, Industry Cloud is in platform-as-a-service, you know, for some companies, there is really no (inaudible) there. So if you're just, not to name names too much, but say, if you progress software and you've got a platform-as-a-service, there is really not a tremendous burning need if you develop or to go there to make money and there's not a tremendous burning need if you need a software that works with your progress database environment to really go there. You really have to sort of create that need, I think the successful entry cloud players who stay and who drive during this transition will be the ones who create that, that they are there.

Mandeep Singh {BIO 15014535 <GO>}

We have a question from one of our listeners. He is asking, who is best positioned to provide cloud services to the Federal government, not only civilian side but especially on the defense side?

Robert Mahowald {BIO 3499020 <GO>}

Yes. And I would say, this is an area we've got a whole team of government analysts who looks at this, but don't think [ph] government with, you know, FedRAMP and a whole host of DFCA and a whole host of other requirements, the notion to become -- to apply for certification or to gain certification is a really difficult tactical challenge and it requires a great degree of physical and digital isolation on your platform, and essentially, you know, to some degree it breaks the model of public cloud.

And so it requires, for example, Amazon to skate after that business in software and to go after that business, it requires them to, you know, to build something net new with the expectation that there will be more, you know, Federal government entity business to follow, you know, once this is buildup.

So I'd just say that the hurdle is quite high and I wouldn't expect many companies to go through the steps to become, for example, FedRAMP qualified, because what they can always do is, is that, I think is the wise move in a platform economy is to sort of -- is to leverage the, you know, leverage the high-cost, high capital cost back-end and provide a set of digital services, transformation services on top of that and I think that's a successful -- to me, it's a successful formula.

Yes. Again, but I would say that we have four or five analysts in the Government Insights business who think about -- think and talk about the stuff all the time who will be great to talk about that.

Mandeep Singh {BIO 15014535 <GO>}

Talking about Amazon and we can wrap up after this. Like the hyper-scale guys, Amazon, Microsoft, Google, what can these guys acquire to, you know, further kind of enhance their competitive positioning in the cloud, they're already dominated, but what kind of acquisitions would the hyper-scale guys be looking for at this point?

Robert Mahowald {BIO 3499020 <GO>}

To me, they're going to be looking three years down the road. It's almost kind of -- it's kind of what they would have put into a moon-shot practice if they really thought that they could do it or somebody wasn't already doing it pretty well. So, it's certainly things like IoT, it's things like block-chain and I think it's getting -- it's bringing those functional capabilities on-board. As I said earlier on, I really think that this is a race to move a lot of customer stuff to one of the big mega cloud providers and then start to just absorb more and more of that IT spend pie. And I think understanding that, you know, what are the complex customer problems that they don't even really know that they have yet is what they would try to acquire for. I think, you know, I haven't talked to the folks at Amazon and at Google and at Microsoft, particularly a lot, I think there's a lot of something verging on hubris in terms of what they think that they can build.

And it's -- I think they're probably right from a technical engineering standpoint, the level of -- I was just saying to somebody the other day (inaudible) -- to Mickey the other day, we were talking about the team in Amazon that two people whose full time job it is, is to fully optimize a $246 supply part.

When you get into that level of optimization and using ODM and direct-to-fab on pretty much everything as you build, it means that you've got a sense that you can build and create most of the services that you sell. I think that the -- as I said, it's a two or three-year out stuff that I think that they might be willing to, maybe it's something like it's governance or message queue on the IoT side, data rationalization, because they already have, you know, all the data warehouse functional file object and block store kinds of pieces they would need for an IoT kind of offering. So, I think that -- I think Amazon is maybe a somewhat separate case. I would say, Microsoft is a little bit different.

I think Microsoft is, you know, has built up the data center capability to be a mega scale provider, but I would put them in a slightly different provider perspective in that. They -- I think they can still gain from -- that they're still in the application space unlike the other ones we've named. And I think they can still gain from buying a security provider, a desktop virtualization provider, or buying, you know, a application provider to have a bigger portfolio, for sure. That's what I would say. Mickey, do you have any more ideas there?

Mickey North Rizza {BIO 17644459 <GO>}

No, I think you are on the right track there. It really is where they are going in the long-term here and it's -- as we said, it's gain for market share, how quick can we grab it, how quick can we put it all together and what are the next steps. So, it's really moving faster than I think even our human minds can fathom from an overall perspective.

Robert Mahowald {BIO 3499020 <GO>}

Yes, (Multiple Speakers) I'm sorry, go on.

Mandeep Singh {BIO 15014535 <GO>}

No, no. Just complete your thought, please.

Robert Mahowald {BIO 3499020 <GO>}

Just as a last piece of that, I forgot to mention, really is, in AI, in a machine learning, I think, we are still convinced some of the work we've done in applications with our Cognitive team, convinced that it's so much that, that kind of capability will take some of the core applications providers particularly way out of the league that we've seen from Microsoft and Salesforce and Oracle and SAP, this kind of capability announced, I will tell you from -- just, you know, from being out and visiting our friends in Waldorf a couple of weeks ago and from talking to Salesforce about this

extensively, there are capabilities that they don't know how that, that they really want to have and be able to complete a whole workflow for customers around AI and that part of the application transformation piece.

That is something that I think is sort of a tier below mega cloud provider, but particularly in the application space will be a big deal. And I think if you're (Technical Difficulty) and you need to support that, you've got -- you get a big marketplace with application providers on it and they -- to run, they use your infrastructure as their back-end. And that a lot of companies can say that, you need to have that capability as well, the whole idea of message queue and data rationalization and et cetera, so machine learning.

Mandeep Singh {BIO 15014535 <GO>}

Great. That's all the time we had. I would encourage everyone to take a look at the M&A report that Bloomberg Intelligence has published on their terminal. It's available to the terminal users on BI-ISFT. Thank you so much, Mickey and Robert. This has been wonderful. I learned so much. I really enjoyed the discussion. Hope everyone found it useful, and I'll look forward to future webinars. Thank you all.

Mickey North Rizza {BIO 17644459 <GO>}

Thank you.

Robert Mahowald {BIO 3499020 <GO>}

Thanks for your time.