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For Cloud Professionals
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Title: **Cloud accounting: dealing with the ever-growing complexity**

Description: As cloud adoption increases at an ever-faster pace, many organizations are realizing that the only thing as complex as building their perfect cloud solution is ensuring the proper accounting treatment for cloud. In this episode, David Linthicum and Deloitte & Touche senior consultation partner Sandie Kim Kulick discuss the complexities of accounting for cloud. According to Sandie, as cloud implementations evolve, accounting and finance will need to have a detailed understanding of the company’s cloud posture. Companies will also need to continually rethink and revise their accounting treatment for all things cloud—especially those companies that are global and/or those that want to potentially market the apps they develop.

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Operator:
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David Linthicum:
Welcome back to the On Cloud Podcast, your one place to find out how to make cloud computing work for your enterprise. This is an objective discussion with industry thought leaders who provide their own unique perspective around the pragmatic use of cloud-based technology. Today on the show we have a very special guest, Sandie Kim Kulick, and she's a senior consultation partner at Deloitte & Touche. She provides consultations to audit practitioners and clients on complex financial accounting and reporting issues, primarily in the areas related to revenue recognition, business combinations, long-live assets, stock-based compensation, and other employee benefits. She also serves as a lead partner for the national office revenue recognition team, which is pretty impressive, Sandie. So, tell me what's a typical week like for you. I always get into what people really kind of do during the day, or – is it Zoom meetings all the time like everybody's attending now? Is it doing lots of analytical work, running spreadsheets?

Sandie Kim Kulick:

So, my typical week I would say is consumed by a lot of Zoom calls, so occasionally I do suffer a little bit from Zoom fatigue. But I do spend quite a bit of time talking to our practitioners as well as our clients on various accounting topics, issues that they're dealing with. I also spend quite a bit of time developing publications for Deloitte, and we actually have quite a few great publications related to cloud specifically.

David Linthicum:
Yeah, that's great. And this is a topic that's near and dear to my heart because through my career I've been a CTO a bunch of times for publicly-traded companies, and then a CEO a couple of times for cloud computing companies. And one of the things that we got into was ultimately if we're going to turn something into a SaaS-based system, in other words take something like an enterprise piece of software that does something, say student scheduling or some accounting system, things like that, and then turn it into a public-accessible software-as-a-service cloud, they would come back to me and they'd say, "Well, how do we account for this?" And this was in the early days of cloud computing, and of course I have a computer science degree, not an accounting degree or a law degree and I'd go, "I don't know." So, can you provide an overview for me as to what revenue recognition is for cloud services and why do we need to understand it as cloud professionals?

Sandie Kim Kulick:
Sure, sure, absolutely happy to do so. So, maybe I'll start off by saying it does seem like these days, right, you wouldn't be able to have a conversation about cloud services without acknowledging that companies have had to accelerate their digital transformation, especially in today's remote work environment. And so, it follows that many tech vendors have also seen strategic shifts to end significant growth in their offerings for cloud services as well as hybrid cloud offerings. Now at a high level I would say that revenue for cloud services is typically recognized ratably over the term of the subscription, but as with all tech offerings it's not always that simple. So, I think it's pretty important for cloud vendors to analyze their product offerings, as well as their fee structures, to determine the right revenue recognition policies.

David Linthicum:
And so, this is important because, at the end of the day, if we're a publicly-traded company, and I was an officer of a few of those, it's important that you review the quarter-on-quarter growth. And how you recognize revenue can, number one, make or break your quarter, and if you don't do it correctly it can also get you in trouble. At least I've seen that happen in the industry for a while. So, why do technologies need to look at this as a concept and figure out what they build and sell? And why is it important besides the obvious things – you know, keeping you out of trouble – but also the ability to in essence not scuttle your business if you're moving into a new way to deliver technology, namely being public cloud computing?

Sandie Kim Kulick:
Right, right. So, I would say that while at a high level cloud service revenue is typically recognized over time, the revenue contracts that we're seeing in practice are often pretty complex. And then when you throw in hybrid cloud arrangements in the mix, the accounting can get even more complicated. And just to give you an example, hybrid cloud arrangements, they typically include multiple performance obligations. So, you might have the on-prem software license, updates to that software, cloud-based services, and sometimes you might have professional services. And each of those performance obligations have their own separate accounting, and on-prem software licenses are typically recognized at a point in time, while the updates and services like cloud-based services are typically recognized over time.

Now the hybrid cloud offerings that we're seeing have become increasingly more sophisticated, right? And so, we're seeing more instances in which the cloud-based services, or the updates to the software license, are critical to the utility of the on-prem software. So, I do think it's imperative for those in accounting and finance to have a really detailed understanding of the product offerings. I think there are some cases where a cloud-based service provider may be able to combine the on-prem software and the cloud services or updates as a single performance obligation if they do meet some key conditions. And if they do meet those requirements to combine the on-prem software and the cloud-based services into a single performance obligation, it does make the accounting a bit simpler, since they can potentially recognize revenue from that combined performance obligation ratably over time, which could reduce the volatility in the recognized revenue, which is always a good thing, right?

And then maybe the other thing that I'll mention is fee structure. Many cloud-based services are sold on a usage basis, and we do see in practice a wide range of terms specifying how and when those usage-based fees are charged. Now the related accounting for this by cloud-based service providers can be complex when you start to throw in things like minimum commitments or usage-based rates that vary. And because the accounting for these contracts could vary significantly depending on that fee structure, we do see some companies that consider how they might negotiate those fees to make the accounting a bit simpler. And just to give you an example, if a company wanted to negotiate minimum fees instead of purely charging on a usage basis, they might consider having those fixed minimum commits that reset monthly instead of annually, and then having a fixed usage rate for any overages. And those can be recorded more predictably, which makes implementing the revenue standard a bit easier and less costly.

David Linthicum:
So, in the early days of cloud computing, I found myself working with these non-technology companies, for example a manufacturer. And they had a piece of software they developed over the years that they figured was going to be valuable outside of their business and they were thinking about packaging it up and selling it. Of course, the cloud comes along and now we can do that in a much more easier way and scalable way by turning it into a SaaS-based system. And so, we'd turn it into a SaaS-based system, and they would put it up and running, maybe in a marketplace, things like that. Suddenly they're a non-technology company, maybe someone who builds transmissions, that's suddenly in the technology space. How do we handle that?

Sandie Kim Kulick:
Yes, yes. I would absolutely say that the more complicated accounting issues that we tend to see do involve tech companies. And I would say that for many non-tech companies, such as the ones that you've mentioned, right, some of these manufacturing companies, their revenue recognition policies may have historically been a bit easier to apply.

Now having said that, it does seem like more companies and industries that have not traditionally been tech do now consider themselves to be tech companies, right? So, we're seeing a lot of fintech or health tech as a couple of examples. And then you sort of throw in the smart devices and IoT, so you have to consider how the revenue recognition will work when you have hardware, devices, software, cloud services – all of that in your product offering. And so, for those companies that are becoming more and more tech, they're largely dealing with similar complexities in determining the right revenue recognition model to apply.

David Linthicum:
Yeah, I was just thinking about this. That seems to be the trend right now, and I'm probably halfway causing the problem because I'm an architect by trade, and so, we're building these complex distributed systems where they're running on multiple cloud systems. They may be leveraging APIs from other systems that are producing APIs in the public internet, something like weather to basically calculate logistics accurately as they can moving forward. And then we're trying to price and recognize revenue from this. You know, how do you get through that? How do you get through all the links in the chain that are becoming more and more links in the chain? Things are becoming more convoluted, more complex as you move forward. Is there some point in time where they just look at it as an entity or a service that's working out? Or you have to account for all these things that are participating into what the components of the system are?

Sandie Kim Kulick:
Right. And that's why I think it's important – one of the things that I had mentioned before, because you have so many components that are part of your product offering or solution, right, that you have to evaluate each of those components, because it could have a very significant effect on your financial statements. And so, things like on-prem software licenses or hardware devices, in general those are recognized typically when you transfer them to your customer. But then layer that on with cloud-based services and updates, perhaps other professional services, and now you have to deal with figuring out how to account for those, which generally I would say those are recognized over time.

But there are absolutely nuances in how the accounting might work. And in some cases where you might have things like cybersecurity solutions, for example, or you might have data analytics that use AI and machine learning, for a lot of those solutions you might be able to look at all of those various components that go into it and say, "Well, it's really a single offering." And if you conclude it's a single offering, having to go through the accounting analysis itself is pretty challenging to actually get to that conclusion. But once you get to that conclusion, it does make the accounting a bit simpler because then you're taking that single offering or solution and recognizing it using the same policy, which generally would be over time as opposed to having things that are recognized at a single point in time.

David Linthicum:
Yeah, it is absolutely getting a little bit more convoluted and it's probably going to get worse moving forward. But I think trying to figure out how we're going to group these things is going to be very important. Also, what everybody is doing these days is they're building software-as-a-service solutions, or cloud-based systems, or things that they're selling in the marketplaces that are provided by the various cloud providers. And those are ecosystems unto themselves, and there's companies that are approaching a billion dollars in revenue that just do all their revenue selling through these marketplaces. So, are there issues that should be considered prior to the investment and development before we start moving into that space? And if so, what are they?

Sandie Kim Kulick:
Absolutely. So, in addition to revenue recognition, I think a lot of these cloud-based service providers do need to consider the accounting on the cost side, right, the actual cost of developing their software solution. If software is sold on an on-prem basis, there actually is typically very little capitalized; most of those costs are considered R&D expenses. But on the other hand, if the software is only being sold on a cloud basis, there's actually a lot more that would be capitalized. But what actually does get capitalized depends on the phase of software development. So, basically only those costs that are incurred during the actual application development is capitalized.

So, it is pretty critical for companies to develop proper internal controls to make sure they're determining which costs are being incurred and what phase of development, and this could often involve pretty detailed time tracking for various personnel, whether it's your software engineers or project managers. And I would say that cost tracking these days has become even more difficult since many companies have implemented an agile development model, right? So, the actual development itself doesn't move linearly in the phases that are described in the accounting standards for when you start to capitalize and when you stop capitalizing. So, that's why I think having the proper systems in place to track those types of costs is pretty critical for these companies.

David Linthicum:
Yeah, absolutely it is. Something has to be thought out as you're planning to build these systems, not after you build them, because you have to figure out how you're going to make money with it and how you're going to recognize revenue, and all these sorts of things are very important to running a business. And it's funny. As technologists we have a tendency not to consider that –

Sandie Kim Kulick:
Right.

David Linthicum:
And ultimately it becomes something that, like I said, can sink your business. And I learned that when I was a CEO, but when I was a CTO I said, "Let's build it and throw it out there and see how it goes," and that's just not the way you do it. So, what about purchasers of cloud services, so people who are buying services over the open internet, what do they have to consider in terms of revenue recognition?

Sandie Kim Kulick:
So, for them I think it's really more on the cost side that they would have to consider how they're accounting for that. We do have a relatively new accounting standard that deals with purchasers of cloud services. Now if you only purchased on-prem software, those costs would typically get Capex treatment and they would get amortized over time. But then questions started to come up as we're seeing, right, more companies buying cloud services. How do you deal with the implementation costs that you're incurring when you're only purchasing software on a cloud basis? Historically a lot of these companies were expensing those costs because they're associated with services, as opposed to software that you're taking on-prem. But under this new accounting standard companies are actually able to capitalize many of those implementation costs and then expense them over time.

But one question we do get a lot related to this is how that impacts EBITDA. And because you can't present the expense that's being amortized as amortization costs like you can for on-prem software, it actually would not be backed out as part of EBITDA unless you use some sort of an adjusted EBITDA-type metric.

David Linthicum:
Boy, I'm glad there's people around like you who are able to do that, because that's something I don't think I could figure out. And by the way, even making it more complex, things are probably different in terms of rules of regulations, certainly related to accounting, from country to country. So, how do you manage that?

Sandie Kim Kulick:
Right, right. So from a revenue recognition standpoint, our US standards are largely converged with international standards. This happened relatively recently. There might be some nuanced differences, but for the most part they're largely converged. But on the cost side one of the more significant differences does relate to what I just talked about, which are implementation costs for cloud services. There's a new accounting standard in the US for capitalizing some of those implementation costs, but you actually don't have an equivalent standard internationally. So, I think where you might perhaps have different systems, depending on what your statutory reporting requirements are overseas, you will actually end up with potentially very different accounting outcomes.

David Linthicum:
Wow, and it sounds like as the laws change over time you have to keep up with the changes in the laws. Is that right? So, new administrations, new government, things like that, as they flow through it they change some of the accounting regulations in terms of how things are recognized, and those have to be – in essence, these volatile things you have to learn how to put into a domain, or am I off base?

Sandie Kim Kulick:
No, absolutely. You know, I mean, the revenue standard that companies have had to implement is relatively recent, and it created significant changes for a lot of tech companies in terms of how they recognize revenue. They've had to implement a significant amount of internal controls and systems that had to be put into place to account for these significant changes that have taken place over the past few years.

David Linthicum:
Yeah, absolutely. So, besides accountants, CFOs, people who are typically dealing with the financial statements within these companies, who else needs to be involved as far as management structure goes?

Sandie Kim Kulick:
So, because the accounting can get pretty complex, as I mentioned, and it really does depend very heavily on the product offering and the contract terms. I do think it's pretty important to get the accounting folks involved early when a deal is being structured, and sometimes this means having them performing detailed reviews of contracts before they're actually signed, especially if the deals are non-standard. And so, it's very important for the finance and accounting departments to have robust coordination with other groups. That would include folks in legal, folks in sales, as well as IT or engineering.

David Linthicum:
Yeah, and it's important I think that – you know one of the things I found out as I was running these things and building these things, that in not engaging these folks early and often, you're going to make a mistake and have to in essence redo some things. And so, in other words, revenue recognition could relate to how we're combining things like open source technology and different services that we're leveraging, things like that, and depending on the countries that they're going to be sold in. But if we're bringing the CFO in and the accounting groups in in the eleventh hour, that means they're going to make suggestions to stay compliant with the law. That means we're going to have to reengineer some things. Or am I being too negative?

Sandie Kim Kulick:
No, no, that's absolutely right. Because it can make such a huge impact on your financial statements in terms of how you structure some of these contracts, especially the fee structure, it is pretty critical to have the finance folks involved early to make sure that the revenue recognition policies aren't completely out of whack by the time the deal has closed.

David Linthicum:
Yeah, absolutely. So, remember, folks out there listening to this podcast, you guys are building some of this stuff. I know because I hear from you. So, make sure you engage your CFOs and your accounting teams. Make sure they know what's coming down the line to get the advice they need. Or you're going to end up redoing pieces of it and that's never fun. So, where can listeners find out more information about what you do, what your group does, how to get in touch with you, things like that?

Sandie Kim Kulick:
Well, I'm glad you asked, Dave. We do have a series of great publications that addresses all of the issues that we talked about today and more. So, please visit – it's a bit long but I'll mention it -- www2.deloitte.com/us/cloudrevrec

David Linthicum:
That's great, and we'll put that link in the show notes as well. And I'll tell you what. This is a very interesting conversation because again this did cause me sleepless nights throughout my career and it's something I never really learned about and never really addressed. And I think that the more technology people understand the complete lifecycle in terms of the business of selling this stuff and the ability to have it contribute to the business in an effective way is something that really needs to be thought through.

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