| Kyle Macyda: | Hello. My name is Kyle Macyda and I would like to welcome everyone to your continuing series on cloud strategies for higher education. I'm joined today by members of Plante Moran's IT & Cyber Security Consulting practices. With me I have Alex Brown, Sri Chalasani, and Donna Freddolino.

In a previous podcast we covered planning your cloud strategy. Now we want to focus on cloud service providers and implementation.

And Donna? |
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| Donna Freddolino: | This is really where the rubber meets the road. Right? I mean this coming back from a lot of campus visits we find that the questions that are being asked cover kind of four major areas. People are really wondering where to being. What is a good starting point for a cloud service project? Then how can they develop what it is that they're really trying to do? How do they describe that to a potential provider or a vendor? Really fundamentally they're looking at, what are the characteristics of a good provider? How can they be certain that they're not being taken advantage of, that there's really a good track record of working with similar or like-minded institutions? Maybe the last one but I think it's pretty important is getting a sense of setting expectations on campus and how long a project timeline would take.

Just having those conversations about these concerns, I know that what a lot of clients would be interested in having us talk with them about is how do they begin taking those first couple of steps looking at and evaluating cloud service providers?

Maybe we should dive in right around the topic of what projects are good starting points. Sri, I often will bring you into those conversations. You probably have some pretty helpful insights for the people listening. |
Sri Chalasani:	So for somebody that has not dipped their toe into this cloud environment, so you almost have to look at the systems or applications that will have the least disruption to your organization. That would be a safe bet. I mean for people that are more mature in this cloud strategy, that's a different story.
Donna Freddolino:	So don't start with payroll.
Sri Chalasani:	Don't start with payroll.
Kyle Macyda:	No. [crosstalk 00:02:33]
Donna Freddolino:	Okay. Got it.
Sri Chalasani:	You're not gonna have a lot of happy people if something happens there.

So when you look at some of the key things that may have the least disruption to the broad user base, especially if you have any kind of development platforms. If you have customization of applications best practices calls that you have a test environment. That could be a quick environment that you could move to a cloud, test it out from a connectivity perspective, from a performance perspective, and ease of use perspective. That can be easily migrated though, to somebody else's cloud services.

The second one is probably if you look at your infrastructure, when I say infrastructure your servers and storage those kind of systems, if you're at the sunset stage of those systems you can take a step back and say, "Do I need to solve maintaining these systems on premise or can I leverage a co-location facility?" Meaning essentially, is it a me maintaining my data center or can I leverage somebody else's data center? Or even go up the stack of that computing model stack and say, "Can I leverage somebody else's computers, somebody else's storage, somebody else's services," and essentially make my data center a lights out data center or minimize my data center footprint, that could be another thing.

Now in those particular models, as an organization you can pick and choose how high up the computing stack do you want to go. So there's a great deal of flexibility there.

The last piece could be if there are certain applications that you are not currently using, for example if there's a brand new fundraising application, rather than bring that in house you can look at it and say, "Does it make sense to procure that as a cloud service model," so you can test it out before you say, "Yep, this model works for our stakeholders here and we'll leverage the cut-"

Donna Freddolino: So instead of investing a lot of time in building the IT capacity to operate as well as be maybe a specialist, an analyst on how to best use those solutions, the clouds is gonna give them some choices for faster ways of getting there without that upfront investment.

Sri Chalasani: Exactly. Obviously, as we discussed in the previous podcast, there's a lot of up ... it is a strategy. It is not a on off switch. There should be a lot of planning, especially from a security perspective, from a performance perspective and making sure that we have all our I's dotted and T's crossed. We want to make sure we said those are all taken care of before we say, "Let's go with vendor X."

Kyle Macyda: And you need that description of needs. I think that's important. What are you trying to do and how are you going to do it? As you've touched on, there's lots of different aspects, lots of different approaches. I think in that part of that needs assessment is helping to find the right provider. Right? I mean there's lots of providers out there. There's lots of varying degrees of capabilities, varying degrees of security and compliance that these vendors do and it's a pretty large landscape. Right?

I think as folks go out and try to do this it's really finding the technical fit, providing a non-technical fit. SO who's going to be working hand in hand with their IT staff and how is this relationship?

Donna Freddolino: Even knowing where to start on that though I think is something a lot of folks I talk with just say, "Help me get started. Help me identify what the resources are that would show me who's currently doing what." I think professional associations, even EDUCAUSE has, I think, some tremendous listservs where people share very openly, even the level of agreements that they have with service providers. There's some tremendous knowledge out there that I think could be tapped at low cost that higher ed is well served in reviewing.

Kyle Macyda: Yeah. Absolutely. Not all providers are created equal. I mean you know if you go to them and say, "Can you do this?" They're gonna answer you yes. Right? We know that. It's just depending on the degree that they can offer it. You know Alex from a security perspective we know that's a big differentiator among a lot of the providers that are out there. They have varying degrees of capability right? And auditing?

Donna Freddolino: But like what are the key things that we should ask for?

Kyle Macyda: Yeah.

Alex Brown: I think those are some of the qualifying statements right there you hit on. I mean so let's say you know if for example we're looking at a provider, do they have a SOC, a third party evaluation of their security environment. I mean someone to kind of come in to independently affirm that "Yeah, the controls are in place." I mean that's good to know upfront. It's the right question to ask when looking at the, we talked about last time, planning but from the implementation standpoint. Also, I mean even compliance wise. If we're talking where you know there might be a PCI kind of compliment for that particular university. Does that particular vendor meet the requirement standard for PCI? Are they in compliance and what is their compliance you know philosophy? What are you doing to kind of meet that? That's certainly upfront when you're looking at planning out the right services. Again, we talked about looking at vendor qualifications but maybe the ones that are fit the need for what we're trying to attempt to do and then you know there's other things. Just making sure that we've implemented the right control framework in line with that particular cloud solution or strategy. We have the ability to kind of understand our controls that will be taken into account and know where those controls are from the particular cloud application or if it's storage, where and how that will be locked down.

Kyle Macyda: So is transparency important? I mean is that what you're driving to, having the framework and transparency so I know what you're doing with my systems and data? That can be kind of challenging right.

Alex Brown:	Yeah. Kind of a layered effect yeah, so we know the controls that we internally have an inventory of. Yes we review the access. We do the right kind of ... access provisioning but also we have our vendor relationship with the right vendor selected so we know that vendor also has equal control. So we're at a same level if you will across the board.
Donna Freddolino:	That relationship is such a great point Alex. I find a lot of times, almost a preference to have providers or these services that you can sit with that are geographically close to you.
Alex Brown:	Right.
Donna Freddolino:	I know that may not really be a key differentiating factor but I think there's a comfort level there for many institutions.
Alex Brown:	There is. You know who, and how, and where that is. I think geographically that's important too is, "Is my data being maintained within the US or is across and scattered abroad," and that may be a plant requirement if you're dealing with several contracts that have US based business type of dealings. Knowing your relationship, right to your point Donna, is certainly key to what and where my data is.
Kyle Macyda:	You know looking at this there's a lot of complexities of how, what, and how do we manage a timeline. Donna are you hearing that be a big consideration?
Donna F.:	Well invariably. In addition to maybe a board member saying, "We have to go cloud." What we often here is that someone just wants to know how long it's going to take them. What's the duration of these products?
Alex Brown:	Right.
Sri Chalasani:	I think there are two things we have to keep in mind. One is, the cloud is a strategy it's not a on off type of thing there.
Alex Brown:	Right.
Sri Chalasani:	It does take careful planning. It's not a true, from a business standpoint, it is not to be viewed as a cost saving endeavor. It may or may not, so I think you have to kind of go in there with a little bit of an open mind. The cloud strategy is not always a cost saving mechanism, whether it's from a operational perspective or a staffing perspective, there are pros and cons of going to a cloud environment. One thing that we get quite often asked is, "If I go to a cloud strategy, how much of my IT staff can I reduce?" That'll be very premature to ... That's a very premature assumption to go in with. You should really look at, "How can I use, leverage my existing IT staff to bring more value to the organization?" Rather than saying, "How do I reduce my IT staff?"

Kyle Macyda:	Yeah. Absolutely and again I always use the aviation analogy. You know the bigger the aircraft, the longer the runway. Right? So depending on what you're trying to do with your cloud initiatives it might take a lot of runway to get flight to it. So if it's something small, you might be able to do it in a short timeline. If it's a large initiative and you're really taking into consideration the governance, the people aspect, security; it could take quite a bit of time.
	So again, I think we've covered quite a bit in this podcast today. Again, we thank you all for listening. In our next podcast series coming up we'll have key aspects around service level agreements, ongoing management with cloud services providers, looking at security and an exit strategy as well. So we thank you all for your time.
	Thanks for listening.
Announcer:	Thank you again for joining us today and for more information on higher education please visit highered.plantemoran.com. Thank you.