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Industry and Campus: A Balancing Act: Stability vs. Innovation in Higher Ed IT

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1:00PM – 2:00PM Eastern
Welcome to today’s Industry and Campus webinar: A Balancing Act: Stability vs. Innovation in Higher Ed IT. This is Jamie Farrell, Online Event Production Manager at EDUCAUSE and I’ll be your moderator for today. EDUCAUSE is pleased to welcome today’s speakers: Manoj Krishnan and Charlie McMahon. I will introduce them in just a moment, but first let me give a brief orientation on our session’s learning environment. Our virtual room or learning space is subdivided into several windows. Our presenter’s slides are now showing in the presentation window, which is the largest on the screen. The tall window on the left serves as the public chat space for all of us. You can use the chat to make comments, share resources, or to pose questions to our presenters. We will hold Q&A until the end of the presentation; but we encourage you to type your questions into the chat throughout the webinar. If you have any audio issues, click on the link in the lower left-hand corner. And, at any time you can direct a private message to “Technical Help” by clicking in the top-right corner of the Chat window. A drop-down menu will appear where you can select “Start Chat With” and “Hosts.” The session recording and slides will be archived later today on the EDUCAUSE website. And now, let’s turn to today’s presentation. The accelerating and disruptive innovation in technology is forcing organizations to reimagine the role of IT in both traditional and modern environments. IT leaders must ensure that day-to-day operations are running smoothly and cost effectively. At the same time, they’re experiencing tremendous pressure to innovate and create a competitive edge. During this session, you will learn about two inherently different operating models, the key challenges associated with each, and what it takes to successfully navigate an increasingly turbulent landscape. We are delighted to be joined by Manoj Krishnan, Manager at Huron Consulting Group. Manoj has served as a project manager, subject matter advisor, and team lead, working directly with CIO, CFO and VP level counterparts at public Higher-Ed institutions and Fortune 500 companies. He has led IT driven business transformations, IT assessments, organizational readiness studies, IT service costing, funding and chargeback design, as well as implementation initiatives. He has helped clients understand how to expand IT’s role as a business partner, consolidate multiple autonomous IT organizations, improve service delivery capabilities, and identify cost reduction opportunities under increased revenue and funding pressures. We are also joined by Charlie McMahon, former CTO and Vice-President for Information Technology at Tulane University and current President at CTR Consulting. Charlie is also a Technology Adviser for the Bill and Melinda Gates Foundation, an is currently working with Huron to lead the Transformation Management Office for the Los Angeles Community College District. Among his many roles, he has also served as the Executive Director of the Louisiana Optical Network Initiative and on the boards of National Lambda Rail, Internet2, Southeastern Universities Research Association, The Quilt, and many others. Charlie was a featured speaker at the Dell World 2012 Keynote with Michael Dell and President Bill Clinton and was a member of the State Department delegation to Chile to evaluate the impact of the 2010 earthquakes on Chile’s Colleges and Universities. Thank you Manoj and Charlie for lending us your expertise today. And with that, let’s begin today’s Industry and Campus webinar: A Balancing Act: Stability vs. Innovation in Higher Ed IT. Charlie and Manoj, over to you.
Manoj Krishnan: Thank you, jumping right in, the topics we cover today she explained at the beginning of the session will cover the models, what the model looks like and what the innovative model looks like. How to balance them in terms of how to organize around it and online the business. We will have questions and answers and take questions and answers as we go through the session. We also have a few poll questions along the way. Moving on, the first one is I just want to understand, the demographics here, what is your type and if you could answer those questions that would be helpful. It looks like it is pretty close. Great. So, we can move on and looks like a good mix. Moving on to the next slide, this is the higher end at publishers every year and what we did was take a look at and compare it from the latest one to the year 2016 which was a few years back and we see a huge difference in those. It also outlines the topics which we are discussing today and the focus of today. So, the things that we are noticing that are new, he centrally beginning to end is managing them with different business models and they are entering. And, as we move towards the right, we see a higher awareness of what we call shadow IT by passing it in the business. We are also seeing it as an agent of institutional innovation. So that seems to have entered it today. And finally, also, the contributions that IT could make to improve this.

Charlie McMahon: Charlie McMahon let me say a couple words about artificial intelligence. It is new from higher education, and we have all seen it and we have companies coming at us from everywhere, and I do not want to put them on the line but sometimes, we think of them as Fender vultures. They are descending on the carcasses of our need and trying to provide answers for us, I would suggest that we be cautious when someone says, give me your data and I will give you the answers you're looking for, you really have to pay attention to the underlying methodology which they are using. And as an example, in traditional forecasting models, say economic forecasting model, the validity of the model is predicated on the date of being stationary. And not to be two statistically geeky, you need to make sure that when someone says given me your data and I will give you a you and answer you understand the model they use and you understand your data well enough to know if it conforms to the constraints of the model. Or you are not going to get reliable results. So, a note of caution, this is a new one and we are all dealing with that, but it is important to proceed carefully.

Manoj Krishnan: Thank you, Charlie. Moving on to the next slide, what are the operating models let's talk a little bit about that, when I say that, I just want to be, I want to explain what I mean by operating models. So, this is focused. Often it is inflated with organizational models and really it is connected but distinct. This is abstraction. You could have that many different organizational structures or models that could delegate these so that is the difference. So, these operating models, by their very nature are in a constant tug of war. One need security and which, decentralize the higher education and then, the other is disruptive and unpredictable. The only constant is gratuity. This model is mandatory. You do not have a choice you have to work on it. Therefore, it is really easy to concentrate your efforts on it so it is the default and it is easy to focus on operations and innovation on the other hand is optional and discretionary and therefore inherently risky and difficult to justify. And both of these models is the
notion of alignment of the business in the partnership. So, the organization just comes along and I heard many of our clients, the phrase, we lurch from one crisis to the other.

>> Charlie McMahon: All of us, Manoj, struggle with this because you are right, we do have to keep the wheels on the road so to speak. Innovation is difficult to work in and what I have done in my past lives is tried to carve out a few resources that I could put on skunk work projects as an example. Take a little risk and do them quickly. Sometimes people think of this and is feeling fast. I like to think of it as succeeding quickly. We do not have the option which you sometimes see in corporate America where you completely remove the IT model from a traditional model to innovation model. But we have to find some way to have a hybrid or a transition which bridges us from traditional to innovative kind of capabilities. And that the way I have seen people approach it successfully including myself is to set aside a small number of resources that you could call on when you sense an opportunity to do something innovative which forwards, moves forward the business objectives of the institution. Krishnan: And to expand on that in terms of the funding we will talk about that a little bit more but the difference between the corporate world is nonprofit. Corporate world tends to have profit which they put back into our and Vicki and other models makes it a little bit more difficult especially on those issues. So, moving on, getting a little bit more into the traditional model, what are the challenges, so, what we see in reality, over 90% of your resources, your funds really go to support keeping the lights on so to speak. And if you look at the capital expenditures to operating expenditures in the proportions which range from 2080-4060. So, it is natural that there is a considerable amount of funding going into that and that indicates which in reality it is not really true because mostly, that funding goes into major upgrades and so on. And not really what we are thinking about in terms of innovation and experimentation. So, in terms of the services, these are the necessary services. The services that nobody is paying attention to until they go down. So, this is long times. To ensure robustness and security and it also has an impact on responsiveness. So, if you need that time to be able to ensure that security and then the cancer refrain from the business anything you ask of IT takes months. And we have also external pressures, meaning external the shift solutions and also rapidly shifting and we will talk about that in a second. So, the traditional models in higher education, these are not structured to actually make that shift as we moved into the cloud solution there is a shift from the model to the other and most are not paying attention to the flood of operating expenses.

>> Charlie McMahon: This raises a true dilemma for IT professionals. Typically, particularly if you’re in a public institution but even private our budgets are year-to-year, they are not multi timescales. So, when you shift from cap X model when you get one-time money you figure out how to spend it to the other where you have got to have a reliable revenue stream to cover those recruiting crossovers over time. It is a mind shift in the way that the institutions provide budgets for IT organizations. That is a real challenge that is somewhat above the IT paygrade, but it has to be dealt with.
Manoj Krishnan: Which leads us to shadow it, businesslike solutions which they directly have and the implications of those which is growing and sell solutions to a business claiming that it is all you need is managing most of this. While there is some truth to this, the reality is at the end of the day it is almost always unplanned and unbreakable consequences, new integrations and complexities in the ongoing support which is not really funded once it is in place. It also-often comes and says can you manage this moving forward. Then there is integrated response. Many institutions integrate the support and functional support. And then technical support and that means those resources are moving into this model. And then, you know, last but not least a shift in skills and capabilities, the traditional waterfall models, they are designed to augment. That is changing with the cloud. You need more functional knowledge within that space to be able to have the solutions and integration capabilities, cloud first, compute capacity is about how you react to these solutions and of course change in relationship management. And then also, some of the rapidly shifting business priorities. So, maybe think about evolving demand. Business itself is facing pressure and response. And that is basically the priority. So, the current waterfall model just inhibits responsiveness and if there are any questions here, we could take this we have a couple of minutes to take a couple of questions.

Let's just go ahead and keep on going.

Moving on is innovation model, which is the traditional model about less than 10% of our truly dedicated to activities which are related to innovations and right here, the services are focused on customer centric, the services early in the life cycle much less defined and it is really hard to anticipate any level of success with any level of certainty. That is the innovative model. And higher Ed being rather traverse environment as we all know experimentation is not, and failure. So, this is where essentially business alignment is even more critical. The traditional operating model of throwing them back over the wall just does not work for this model.

Charlie McMahon: This is a real challenge as you pointed out we almost have no money and higher education in IT to experiment. And the penalties for experimenting and failing, you know, are sometimes. So, we have to find a way to do it and I will go back to kind of a comment that I made earlier, you have got to find a way to take advantages opportunistically of opportunities to align yourself with the business needs in an innovative way. I will recommend a book to you is called little bets by Peter Sims. It kind of describes this approach pretty effectively. But, we can all find a way to do something on a small scale. To figure out how to do a proof of concept that we can use to demonstrate to our business that we could provide value. I do not like again, I do not like the phrase fail quickly. You know, succeed quickly. And in my mind that is the key to making this transition from the traditional model to this innovative model that we are talking about.
Manoj Krishnan: So, we could talk about this business alignment models DFO are at odds with each other and we talked about funding and this was an interesting survey which was then a couple of years ago. And kind of what it stands out to me is that from the business perspective, the most common notion out there are that they love business expertise and also, the conflict in the structure. Now both of them agreed that they are outdated so that is a good sign that we recognize that. And then, from their perspective they feel that there is a lack of incentives.

Charlie McMahon: This is a real problem and I will tell you this is a problem that IT needs to own an CIO in particular. It is gone are the days where we could act like IT directors or managing the technology. We have to be true business partners and in order to do that we have to understand the business. What I have seen done in my past life is to actually take my business analyst and embed them with my business teams. So instead of isolating all of your people, you know with programmers, with lights down dam and writing code in the middle of the night, some of those people need to live with your purchasing teams and HR teams. With your academic advising teams. So that you truly understand the challenges that they are facing and that we could react to them more appropriately because we understand the business. As long as your CEO and CFO and COO don't believe that IT understands the business, you will never be perceived as a strategic partner. And we have to all that and change it.

Manoj Krishnan: So just a few words on the evolution of the business model right here. So, in the past, we have seen, you know, there is a business and IT has been treated as the provider in the back office. And as we see there is a little bit more integration than we see it is still pretty much distinct. On the corporate side. And, the way that it is moving far into the future as Charlie talked about in the previous light indicates that there is the flowing of lines between business and IT continues to confuse and IT is being seen as a strategic partner that could create competitive advancement so this would obviously be the biggest one like Amazon, Best Buy of the world, where, IT is truly integrated and providing competitive advantage.

Charlie McMahon: There are good examples in higher education as well if you think of people like Western governors who have IT so deeply embedded in the education that the delivery of education, that they know whether a student is going to be successful in a particular course within a few days of that course starting. That is the transformation that we need to make. Not from a, I need to go from an institution or organization that just keeps the lights on to an organization that clearly provides value to the business units.

Manoj Krishnan: That is a great example. And now a couple of question what business alignment models is your institution in. Some real perspective, like are you living in the past or present or future. Mostly in the present. That is a good sign. Excellent. Mostly in the present. So, moving on, so now let's
talk about, what integrations we are trying to achieve and balance and what do we do about these appear which we have talked about so far. All right my mouse seems to be stuck a little bit. There we go.

So, this is a fairly detailed operating model it is simplified view. So, we kind of have on the left, we have demand coming in and then the plan design and build and run services, operationalize in the family supported and go through the improvement cycle. So, what we have added in here is a distinct function or capability to address experimentation. In the important about this is to be very intentional about integrating those innovative services once a mature back into the traditional operating model otherwise what happens is you are under the risk of this organization and we do not want that.

>> Charlie McMahon: This is an area where you could be innovative and very successful or you could be innovative and the things you are doing to be innovative get away from you also let me give you an example in this goes back to you, it starts with tying IT into the true needs of the organization. When I was at Tulane, despite a saying that we do not really care about rankings, we made some deliberate efforts to improve our rankings in the US news and were its, one of the areas we focused on was retention and graduation rates. We boiled it down into a simple problem, we matriculate about 1600 students per year. If we could identify 16 students who are at risk of not returning after their freshman year, we could move that needle one percentage, which is a very big deal. But when you think about it as only being 16 people, everyone else may have a different scale, it seems manageable. So, we started thinking about how we could do things that would move the needle. And we had a couple of very interesting opportunities. You know, as we socialize this objective across the institution, that everybody started thinking about how they made the difference, I had a sidewalk meeting with the person that ran our advising group and he said Charlie, if I have some data, or if I have a place to correlate some data that I have, I might be able to pick out an individual that in intervention would make a difference. Maybe a student that simply needs another $500 in their award to make it possible for them to come back. Or, in a number of things. So, we decided to do a skunk works project with the salesforce and start collecting data and the start using it to see if we could move that needle and overtime, they ended up at Tulane building what most of you will be familiar with as 360-degrees view of the student. And it has been very successful. That project was spun up over about two years for less than a quarter million dollars and operational costs are probably well less than $100,000 per year. You contrast that to a large public institution on the West Coast that started out the same way. They did sales force in small bites, but they didn't do it in a coordinated manner across the institution and they ended up with dozens and dozens of salesforce instances all doing good things. But it got to the place where it was so unimaginable, they ended up spending up a project for five or $6 million to optimize their salesforce environment. So, you have to be careful when you approach these things not only to do things innovatively but to do things in a way to really make sense for the overall architecture. So that is my cautionary tale right here. Krishnan: So, about these operating models and what they look like. They have this creative matter, then focused on priorities, the robustness, all of these good things. And then, the innovative model is there are completely it focuses on experimentation, so you work closely with a business to create products and solutions. And these are not 18 month long. Most of these are turnaround in days or weeks at most. And also, they call for very focused uses. So, Charlie had the
previous example about understanding exactly what you are going for. You know, the question really is not, is this going to work. The question you ask of this model is if it works, doesn’t matter. That is the real question. And then, the text of failure that it is inherent-inherently risky, that is something that higher education grapples with.

>> Charlie McMahon: Manoj let me come in with another example here. At Tulane we had an objective that we needed to improve graduation rates. A simple business statement that was well understood by everyone in the organization so the people in our admissions office darted thinking about what they could do. And they came back with some very simple concepts if we could attract students with higher test scores, they may be more able to do the level of work that we expect, and we may have fewer students that dropped out. If we could also attract those students with higher test scores and do it with lower discount rates. In other words we do not have to pay as much to attract the students, we would then have additional money left over to target or to spend on low income students whom have the capability of being successful at Tulane and finally, if we had a way to understand those students whose personal preferences and characteristics were a match with the institution, if we could quantify those things and have a platform which led us optimize them, we could move the needle on retention starting from the recruitment process. So, we looked around and said is there technology platform which could help us to answer the solutions. We evaluated a couple one is salesforce and some people are doing. But we decided to use Sleeped. Sleeped, if you have never done it is cloud-based native platform for doing recruitment and the installation of that we stood it up in about six weeks with the majority of that work actually being done by the recruitment office. And that those IT people provided some support and of course hooks back into the rest of our systems and that turned out to be very successful project because we married the appropriate IT to a clearly identifiable business case and we were able to do it underneath this kind of innovation model that we have been talking about.

>> Manoj Krishnan: So, what is a model look like to you. So, we have the CIO running the organization now, in this world the CIO is more valuable to be able to understand IT strategic potential and to recognize the opportunities to be able to solve business problems and to build an effective team of specialists and know how to get the best of them that is really the role of the CIO which is a little bit of a shift from the past it is a full-time job in and of itself. And that brings us to the traditional model. Operations do not run by themselves. Your news need someone strong enough and therefore you could call them the chief operating officer for someone focused on operations. Now there are different mindset and I may even say different personalities are suited for this which needs to be for that recognition. In my past life, I worked for an automotive company right here in Detroit and I was on the engineer side, there are two kinds of engineers. When is manufacturing? And the focus of engineering is a design and engineer takes two or three years to bring up the vehicle production and then got the others whom essentially have no time to plan or strategize, all they do is react. If that line shuts down that is thousands of dollars. So, they are constantly in reactive mode and what is amazing to me is that some people drive that environment and I could never do that. So, the point being that understanding
there are two different mindsets possibly two different personalities that are more effective at running these two inherently different models.

>> Charlie McMahon: Manoj let me jump in with a couple of different thoughts I see structures where you have CIO and Deputy CIO and when you look at those models from a standpoint, sometimes it looks like we may not need a CIO if all he does is manages Deputy CIO. And you know depending on the size of your organization that could be a bit of an issue. What I have seen people doing is, developing organizational structures with multiple deputies. So that you have enough horsepower in your organizational structure to actually manage the operational aspects of the organization. If your organization is large enough to support that it is a good model and, then adding another vertical inside of that structure that focuses on innovation becomes a much easier task I think particularly when you look at it from an organizational structure span of control type of viewpoint. So, I would encourage you to be creative there. The CIO has to make time to focus on strategic things in innovative things but to do that you have to make sure that you have the structure underneath of you to keep the trains running on time because of the train is running on time, nothing else matters.

>> Manoj Krishnan: Right. And we have talked about this a little bit before, once those products or solution reach that level of maturity and ensure that it is transitioned into operations and making sure that that they are supported as they need to be. Also, it is a lot dependent upon the business itself. So, the business needs to also have this innovation mindset and promoted that is why that model works.

We have a minute or two for questions I will take any questions if there are any. All right. So, talking about IT workforce, we talk about the operating model, the organizational model and then clearly it is the people that make things happen. So, what are the capabilities and skills that are required to pull this off. Before we get into that, I have a poll question. I just want to understand the skills and capabilities in shortages are primarily. And if they do not fit into one of these feel free to type in the response.

McMahon: You could also select more than one category.

>> Data and business analysis. Okay. It looks like business analysis wins the day. So, in a survey, a couple of years back, enterprise architecture firm, this is enterprise architecture is an analysis which turned out to be in the corporate world and then in the education world I think this is what we saw earlier. Data and education.

>> Charlie McMahon: It is interesting I would like to talk about the enterprise architecture a little bit because, in both surveys, they were not the top issues that people have. But it is a concern where people do not necessarily have the skills or the staff to stay on top of enterprise architecture decisions and because of that, we and higher education lean heavily on our vendor partners. And you could get
value out of your vendors, but you do have to keep in mind that the risk Association did with outsourcing with reliance on your partners for enterprise decisions. You know, all of our vendors whether they are the most excellent vendor in the world, the most excellent partner that you could imagine, they have limited portfolio of solutions and, they have incentive to make sure that there are solutions are the answer to your problems. So sometimes, you have a syndrome where you have a solution looking for a problem to solve. Just keep that in mind. Overreliance on your vendor partners for architectural decisions are a downside.

>> Manoj Krishnan: What is the ship that we have seen in the marketplace. So, we have on the one hand the cloud and technology which is the software service for the IT and we talk a little bit about the shift in skill sets there. So, the other effect also is reduced on data center -- servers, and all of that. And you have software defined. So, for these kinds of things, the changes are more than technological, it has to do with organizational decisions, structures, all of these need to be redone and reimagined. And of course, there is enterprise architecture which we just mentioned which ties it all together, though the shift in the different solutions from different vendors in the cloud, how do you tie it all together. With architecting it, you need to think about being able to do this.

>> Charlie McMahon: I will reemphasize what I said earlier, do not follow in the trap of outsourcing those decisions you have to take control of those are short -- architectural decisions even if you get guidance from your various guidance partners, you own those decisions and you have to be very involved in making sure that the right decisions.

>> And we have out here about the limited resources. And I think that the next line we will get into this, Charlie.

>> Charlie McMahon: I want to talk about this slide a little bit because this is not slide on the left kind of encapsulates the dilemma which we are in, if you would imagine starting of an IT shop from scratch. On the NO. 1, everything that you do is new and innovative. But as soon as you start putting systems in place, you start having to dedicate resources to maintain those systems over time. And so, as time progresses, you will come in all resources, all of your resources get committed to supporting the legacy systems that you put in place and that the amount of area between this curb which we are drawing here in the 100% level of what is available which shrinks. And we have studies that show over time, this approach consuming all of the available resources, we all have tricks that we use to make resources available to do new and innovative things. The two obvious things that you can do is get additional resources so that you have more capacity which gives you more opportunity to do new and innovative things. If you are lucky enough to get that support for your institution, you should count yourself into a
very small group. Most of us do some variation of the old song, do more with less. I prefer to eliminate that from the institution and talk about doing the right things with what you have. We all are very efficient in how we run our operations. Nobody run standalone services anymore, you virtualize everything so that you are pushing that curve down the amount of effort which it takes to maintain those legacy systems. We also have to be ruthless about systems which do not exist anymore. We have to be vigilant about making sure that we are using the most efficient tools and techniques to manage our environments. These are the ways that we put more space between this line of the effort that it takes to support our legacy systems and the total amount of efforts which we have available in the institution and organization. And unless we can create that gap so that we have more elbow room to partner with our businesses and find successes, we will always fall into the, if some of you remember the old discussion a few years ago, epitomized by Brad and Brian and a Educause are we plumbers or strategic partners if we cannot find a way in our organizations and budgets to drive down the amount of effort that we spend supporting our legacy systems, we will always be perceived as plumbers. So, that is my charge to everybody. Anyways, Manoj I will pass that back over to you for the next slide.

>> Manoj Krishnan: I have a focus question here, how many of your institutions have dedicated funding is it sporadic or sustained. I am actually encouraged to be sustained at 15% and actually it is still dropping, I guess. All right. So, let's talk a little bit about funding. So, let's just talk about the cloud, we have talked about how this major shift to OpEX I cannot emphasize enough how, you know how there over many institutions over the past several years, nobody is really paying attention to this. And you don't have, those that came from Telecom to the rest of the University. The one thing that we have seen is we talk about a little bit earlier is about embedding how important it is to embed your staff within the units and what we have seen more commonly is for the funding for them to actually come from those units and that does raise a risk that those resources and efforts start getting signs aligned into other areas. But that is where, I think the role of CIO in business management and those attached to the business puts them on the same track. And again, there needs to be a fundamental shift. So, the trade-off of success for greater pendulum swing. That is what the folks has to be on. And, investing in approaches with high risk of failure but the potential could be game changing. So again, the question is, does it work doesn't matter those are the ones you want to go after. And we have seen in terms of other major universities then noted-so this is taking a portion of revenue designating that function and keeping it sustained over several years. So, the strategic one for example, a mechanism which is for IT as well if you convince leadership that this is where we want to be and where we need to focus with innovation. McMahon: Manoj that is a really good point if you are not talking about the polls, you ought to introduce that concept to them. When we move from cap next two OpEX and IT we all understand this, but it is not necessarily underselling-understood well by executives the thought is that you moved to the cloud and you save money. Maybe that is not so true if he moved to the cloud you spend your money differently which means that if you go from cap X to OpEX model you have to have a sustainable source of funding. You cannot come up on here and say that we have a reduction in support from the state and so everybody has to take a hit. You can’t not pay for those things once you move them into the cloud. If you do not have this discussion about how this works in the organization, how that works for IT,
you probably ought to introduce that concept in with your management. Krishnan: And some of the other revenue sources that we have seen is external, like dismantling a system so on and so forth, there are a few things other than might be able to alleviate some of this funding and those are fairly decent funding sources. So, moving on. Before I move on, are there any questions on that funding? Okay, we could talk about the alignment. So, in terms of, this is an Educause survey that was done, taking a look at the data of CIO members of a Chancellor’s cabinet they are usually one of them in most cases. So, on the cabinet, it is 42% and not on cabinet is 50% which is roughly the same over the past three or four years, if I remember correctly in 2016, I saw 40/60 lets Westlife improvement for them on the cabinet. And the frequency of them engaging in strategic activity. The graphic I think speaks for itself. So, depending on where the reports came from, the organization and in terms of being able to do that. Now, so what does it mean for him to have a seat at the table? Clearly, just been part of the strategic decision-making body. It is not of the cabinet. All of those meetings which often, comprised of senior leadership. Being able to build relationships and recognizing opportunities and how technology could play a role overall. And also, collaborative strategy I cannot emphasize this enough. They are developed, looking over two or three or five years and then, it sits on a desk somewhere or it is not updated regularly or communicated regularly. That is what we are seeing. So, that is part of being able to communicate that in conjunction with the business makes a difference. Added to all of the things that we are talking about. And of course, governments. Business being involved in all levels of governance a lot of times it falls on IT to run IT covenants. And very little involvement with the business or prioritization, all of those things. So, government would be another big portion of achieving that balance once you have that strategy. And I think that is it.

>>Jamie Farrell: Thank you very much, Manoj we are getting into the last minute or so and I believe you folks are going to be at the annual conference and a couple of weeks.

>> Manoj Krishnan: That is correct, so we will be, we have a booth and we will be at 1430. In my college will be there. Feel free to visit us.

>>Jamie Farrell: Great thank you so much we look forward to seeing you. Thank you for joining us I did share a couple of those links in the chat so you could get some more information about the annual conference. Thank you all for being here for an engaging session and conversation. Before you sign off today, please click on the session evaluation link, which you will find in the chat window. Your comments are very important to us. The session’s recording and presentation slides will be posted to the website later today. Please feel free to share it with your colleagues. If you have any questions you would like to reach out for you will see the e-mail right there which is a clickable. Thank you so very much on behalf of EDUCAUSE, this is Jamie Farrell, thanks for joining us today.
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