Please stand by for realtime captions.

 thx

 >> Please stand by for realtime captions. >> >> Please stand by for Realtime captions. >>

 Good morning. Making sure we are awake. Welcome to the 9 AM session. This will be an online session as well. Just a housekeeping staff, be sure to go to the microphone at the Q&A to make sure the questions can be heard by the people online. For those online, welcome. For those in the room and online make sure that your devices that make noises are turned off or silenced. Especially the folks online, we don't hear that stuff coming through. At the end of the session, please remember to fill out the evaluation. It is important for the committee, the program committee, and moving forward. It is our conference in your evaluation helped make it better each year. Make sure you do that. When you go online, and you click on the session, there is an evaluation button and click on that to be able to do it.

Second, if you are a Tweeter the code for this session is #E11 SC55 and let me introduce our speaker, Mark Aspirin and Kimberly Harper, both from the University of Alaska. Without further ado, I am going to turn over the program to our two speakers. Let's give them a warm welcome. [Applause] >> Thank you, Bill and welcome everyone, Kimberly and I are glad to be here discussed these issues with you. I would like to welcome the online audience. I am glad you are out there and another from the somebody monitoring your questions and comments as they go forward. Basically updating the value proposition, service catalogs are not a new idea, we have been thinking about them and some people have done more with them than we have done over the years. First, Kimberly, decent -- at the central office for the University of Nebraska system and her colleagues have done a lot of work with this and we've have been modeled after that I started doing work and we saw the value in severe college talk today about that.

As far as an introduction, we know that we have probably had at least a decade of demand accelerating and that is probably going on 20 years of executive fewer resources were perhaps flat resources. I believe SI survey, the most recent one, 70% of us have flat budgets this past year are decreasing budgets. I don't think it is an exaggeration to say that we are in crisis, some of the higher education community is in crisis. We are certainly facing some challenges we have some opportunities to do pretty transformational things and IT can lead the way for that this is an opportunity for us to get back on track but there is certainly some risk also.

This is not a picture of me, actually, but it could be and sometimes I send that position and basically ICS is making a conscious decision. So we talked to Educause the last couple of years, some informative conversation and I think most of us live in both worlds and try to spend more time on the strategy part but the bottom line is, trains have to run on time and plumbing has to work very right now, what we are seeing, some of the discussion about the CIOs at the table, and that kind of stuff. What that means from my perspective, are the CIOs viewed as being strategic partners and the future of the university or are they more than just the IT person? So I think right now it is going to become in the next few years, and more conscious transparent decision on some universities parts, at least, IT is mostly a core commodity service and we are going to drive that Kostunica some strategic value, great, but that is where it is versus a more balanced approach, absolutely we are to transform, we are the way to increase automation and get back to that. I don't think we really stumbled and on the other hand, we haven't focused as much about the academic mission in the short term career living in those late day today sometimes and with flat cuts of software costs, hardware continues to be a great area for us in terms of increasing capabilities and reduce cost for software services and staff costs, although their increasing slowly, they are certainly going up over time. We have to figure out how to do it that while still maintaining our education and instruction research and outreach will have to balance all of those. What we are talking about is taking mindful actions now to help us get ready for that shift to transform ourselves and what we talk about in terms of moving services and catalogs of services, is really defining ourselves that way. And what that means from my view, if you look at how we represent ourselves to the campus how we represent ourselves to others looking at the campus website for who we are, we tend to be an organization chart her office space and we tend to have projects that are our world and project updates if we are diligent about posting those online that is her outer representation and they're certainly merit on the project size and it gets to that question about what we are doing with budget and time. So we think there is another way to go with this and we realize that many of you are going to loose path we certainly look forward to hearing from you about your experiences.

In terms of moving to services catalog orientation, to help define and redefine the value proposition and basically what we produce versus what does it cost? At the University of Nebraska, Lincoln, we have a $42 million overall spend on IT and the entire campus in central IT is less than half of that now, is that too little, too much? 42 million is a lot of money but I am responsible for demonstrating why we have that flowing through IT of what we are getting in return for that suffered a services perspective, we talked about what we have done in lessons learned and where we are going with it our main high-level strategic goals are that we need to do a better job of helping everyone on campus, students, faculty, staff, management, understand we are working on making sure that we understand what they need from our service organization on you to make sure they have that alignment and talk more about specific goals in the University of Nebraska system and they are going through a very intensive growth phase in terms of increasing enrollment, accelerating research and we just published our most ambitious goals for the next six years and we need to make sure that IT organizations and horses -- more specifically our services, is how we are moving to define ourselves, those services are window. That efficiency, many of us are in that mindset now, modeling after the corporate world, if it is a core commodity service, Tuesday morning, reminded me in the audience, Jerry McCartney described as the curse of the commodity or service is that they are central for not strategic. So the good news is that, perhaps, it is not that important what they are delivered as long as they are delivered and cost effective.

A lot of our services, most diverse services, are around this core commodity selling it to the collaborative and I see us getting more revenue, and the rest of my career, some universities have done a good job of finding ways of generating revenue and I have not found that as a way to deliver that myself it is certainly an interesting idea and I see a huge payoff and part of that is from the energy cost and more closer to home, part of a big tendency I see is that the set of having more resources instead of our IT engine, we will benefit from collaboration more than the talking and sharing which is important for doing significant things together and driving those together and the ability to scale up. We have a service we can collaborate on? We have a service that can outsource? To have a service that we don't need anymore? And Kimberly was the University of Nebraska system we have some specific goals way to make sure that the systems and decisions we make are very much on target and we don't have a lot of margin for error in terms of relevance, getting back to that earlier change, it is possible if I don't do my job right and perhaps, if we don't do our jobs right in the future, the IT mission and university will lose relevance or the central IT component that we think of as IT. Perhaps, the IT services will always be needed until necessarily need to be provided by staff. That is what we need to get better at. At this point, will turn over to Kimberly.

I apologize, I am short. I am going to talk a little bit about the details of what we do with our service inventory project and basically, we asked ourselves, how can we utilize this orientation and way of thinking in terms of services and to describe ourselves as understanding component interval and so we need to know, what are the services that we actually provide, we as IT providers need to find that, talk about that, describe that in no way fit into that and it is a lot simpler or easier said than done. We brought her in a consultant to do this work, we try to start with somebody internal somebody had been there for decades he knew what we did, provided the component parts of services to create this inventory that was very difficult and the challenge of having somebody and has to that work for us is they are just too close this is how we have done it this is how we have talked about it I not buy this terminology and everybody should have that is not a customer perspective so it was he for us to bring in outside person to help us gain that outside view of what it is that we too are provided. We asked ourselves the questions, the scope of this endeavor, what are our services and how do we describe this to other people? Who are our customers? We often judge asked ourselves that explicitly. And there is a little bit of a difference here from a central administration perspective versus an IT department on campus for you have completely to print customer sets often times. -- Completely different customer sets often times.

The question is, what do these things cost us? We are not a TrackBack organization. -- Chargeback organization and even though we don't chargeback for what we do, it is still important to identify, I think, what something costs us. Especially the situation where people don't have to pay for the services because if you don't pay for them, you don't lose the perception and understanding of what it takes to deliver those. Basically, these three things have images and scope of the project that we started in as I said, we've brought in this discovery work for us, engaging all of our staff in identifying how they play a role in the delivery of everything and all of our services. The first challenge of this endeavor, simply conducting inventory and creating the inventory. It is not an easy thing to do. There is confusion about the steps that I do. This must be the many services that provide it doesn't work that way. In my view one step in the provision of a single service. There was a lot of cultural, this is how we have kind of taught, incentive challenges to get over.

The deliverables, for us, kind of look like this. CSN went through this process first. And then they followed up shortly after and to thank goodness, the directive was, let's not try to be different. If we fit into the model that was discovered during the administration, it's not deviate from that the word is meaningful to do that, let's do. So there's a lot of overlap, darker shades of color represent very provide the same kind of services, perhaps to a different customer groups and the same kinds of activities. The ones below are where we deviate a bit and I would say the biggest -- is there an awful lot alike can we should help collaborate and feed off of each other in a lot of different areas and if we aren't doing it, why are we doing it? And where there might be possible opportunities in the future? There are some things that are different, central administration does not support classroom and research labs. They don't have a computer shop. The technology of building, repairs and function is not something we provide. Some of the areas, we do have to just call it a little differently for example, the consulting and project minute -- management do that and project administration, but primarily as an individual group as ourselves, that is how we manage our project delivery and it is testing whether IT government service management. Service offering. They pull it out because that is more of an external focus to the customers and something that can be provided upon request and it would probably be a chargeback situation for the service. This just gives you an idea of the discovery that we had at the end of it and I think it was helpful for us to understand what our opportunities for coverage in the future. Another perspective or "aha" moment for us is identifying who, of our staff, our provided these individual services or service offerings?

I don't know about you all, I believe that Mark can agree with me, for us, team A does the service and nobody else does that service and they are the sole provider of the service and that is how we have always talked about but if you dig down into what you are providing on what you're servicing your customers there is no way that a single team can be the only piece of the puzzle for the provision of service and this is what we found, if you look at every single one of our services, and those are going across the top in a small box and I moved to pay sections that you can see, our teams go down the side, you can see how many of our teams are for -- involved and user access security, for example. We do have a security team but they are only one piece of that puzzle and so this is one of our biggest challenges. This is a paradigm shift to think they are one piece of the provision of many other services. So we learnt a lot. -- We learned a lot of things from this endeavor and a services oriented orientation is a much more effective way of looking at what you do and defining the value is how your customers perceive you and if you can't take that perspective you're going to famous communicating and talking about yourself the way the customer needs you to talk about yourself and your not going to be able to write anything in a way that is going to get you further along.

Did he talk about the old way are the traditional way and talking about what you're due, very silent prayer or charge related nevermind Hewett services and what it does we provide this product. Add and reactionary -- ad hoc and reactionary and looking at what the needs are a set of the more strategic. The services orientation looking at what the customer needs now and in the future helps bridge that gap grew up here and need to in the future. The service decisions, and a lot of times we see how it related the retired one information service that enable us to go from a mainframe environment and one of the things that go along with the mainframe and when you get into it, we had other things still doing the software and its distrust of service delivery of other things and when you see these together you realize one decision is not one simple decision. Also, during the service inventory is a long-term and if you look at this picture the reason infrastructure hosting is a lighter shade of blue, since we have done this two years ago, does not a totally new service that is a new focus and more of a promotion for something that we did once in a while for people and now it is something we are setting up to do on a more purposeful manner and this is a living breathing thing and it is going to weather a and it is not going to tell the story he wanted to tell and we had some challenges you will relate to the team focus very organization is what they are talking about and resourcing Vasey versus customer facing are you our own customer and do you think of yourself as your own customer and if he does, what does that mean in terms of service delivery and expectation and prioritization and those are very important things to talk about and not easy to get over challenges. But often get trapped in what we don't know. And again, an advantage of an outside person to do the inventory and they asked the questions that they need to be asked and that could see outside what they were used to and another thing is there were a lot of drawings in the sand and the costs to all of our services and I had to, oftentimes, -- the service or not this one work, we are going to count that here at not here and sometimes to an outside person it seemed completely arbitrary because there were 150 ways you could do this. Probably was three times that. Sometimes you're going to have to make a decision and stick by it and sometimes that is not easy to do. So the biggest challenge I would say that we had his staff buy in because this requires them to think differently and in some cases it requires them to collect information and put their time into things that isn't directly related to the service delivery, that is what they are focused on doing so that is the Negroes process that has come along that are probably does not surprise you at all. That would be one of our biggest challenges. A couple of the biggest things that we have seen so far coming up this inventory, is our ability to communicate with leadership. As central administration, we have always produced a document called a wild document and it is to describe -- a WOW document to describe what we do and centered around a product here is her e-mail service and product, here is our SAPD product and would do it and now it is more around services and I can paint a different picture, it is customer focused, what do they care about and know about? Many of our customers don't know what SAP is and they don't care. And rightly so.

This is a huge outcome, to be able to say how much something costs, how much -- how many hours were the good in this endeavor and that requires time tracking and to communicate with our customers when they go to a website and they see information access team. Do they know that that team is responsible for data analytics and authority? I don't know. You have to know what that is and how we were using it. Now we are trying to structure ourselves around what they know, the terminology that they know, the services that they have and the services that they want they'll have to know who delivers it for the product name, they can go and it makes more sense to them. I believe were -- I believe this is where I turn it back to you. Paso want to say, we took two versions of this aversion and put on the website so there is one that has more of the bullet point. So we just did not want to bore you with that but if you want to use as reference, you can go back and use the other stuff on the other side. Same thank you Kimberly. --

Thank you Kimberly. We noticed our fears out there, that is the first thing that we do these days with good intent and result is look at what others have done to the extent that we can and I think we saw Stanford for a couple that we saw were exemplary -- other of many others we have not seen yet. They view this as most things we would do perhaps, most everything we do, is not being unique to our institution. There are strategic or a cheater's but mostly what we spend time and resources on our common to the higher education community and sometimes has gone way beyond that so we welcome opportunities to discuss things with you and how -- and ideas with you and things that you may be further along with and beyond our time today, we would certainly appreciate your outreach as well as some questions. We have a few more slides and comments and discussion here in the room. To piggyback onto a Kimberly was saying, basically, the focus right now, we're all focusing on how to be more efficient in how we can collaborate better and from our view, the way we define ourselves, is that set of services and a couple of examples that we touched on earlier, to dive a little deeper into those, is a classic issue of there is a system and they have a talented staff doing important things and we have people that are Omaha campus and medical center campus, in addition to the same thing, lots of staff doing most of the same things we are all doing it with some joint software licenses would do some things together and we have a good collaboration and consolidation and ERP solutions that there is a lot more we can do by looking at the services approach, we cannot frame this discussion. It gets pretty hard if you want to talk about the world as another department and which pieces might be able to work together but if you look at it, here are 25 of our services, here are 100 services, which opportunities are there and Kimberly's central organization has the costing down and define and we are still working on it but it is that long-term commitment. This is not something that is going to fade away and fades away with that we really haven't spent our time well. As I mentioned earlier, we are lucky to correlate services with outside providers and we certainly know with quality and otherwise, they're going to be opportunities for us that are far outside the traditional facility and environment and many of you are deeply into that. From our view, once again, we come to the table for internal discussion at work with our colleagues in the system for discussions, this is how we are defining ourselves and that is really a huge benefit for us. One last example around that, the system discussion, but look at what has been going on and to name a few systems aren't familiar with, there have been a lot of progress work and tough decisions made and we are going to be more effective and efficient with organizations and we certainly have this discussion ourselves and right before I became couple -- right before I came, there is a conversation that we're going to continue to have and if they have a data center and you have a data center, does that make sense? We have 25 data centers, what can we do or does it make sense to consolidate it and as they go forward, the conversation is going to be more about what we have in the system and how many we need for GFR and when I hear clout, I'm immediately thinking which service are retracting about and how much does it cost? And what of the service requirements? As we build that other becomes a simple decision to put something in the Cloud cuts through those unknowns and uncertainties.

For CIOs and other IT leaders and those of you with organizations that you are working for your careers, we have to be effective of course with strategic planning and I think we can and larger impact where we are not only effectively strategically planning IT investment for campus systems but actually, reaching beyond that to be a partner and perhaps in some cases beating investments and strategies at up IT proper, and that is where we add value and were IT recaptures we got into the business for and ultimately, that helps us was informed decision-making and I'm very excited this week to hear about interest and data analytics and the work you are doing individually and collectively that is a huge push for us because we have major investments and that makes a lot of sense. We have students that have to be able to register and pay bills and all the things that go with HR and financial systems but then what? We know that typical friction areas, what about reporting and when is that going to happen? That is another set of work, very complementary work. Those that have been successful have found a way to get as much of that in to the transactional implementation as possible that we are all looking to do better with that but we don't know that we have a data tidal wave that is already approaching if not consuming us. And even though we have been talking that data warehouses and all sorts of technologies and warehouses for decades now, that is something where the strategic analytics is a new incarnation of that and it will make a difference for us and once again, we get back to what is adamant of our organization? Is that going to be another branch of the organization chart or is that going to be viewed as a service? And that is viewed as we know and that we have figured out what our investment is with that and our capability, the old-school way we will hire some people and get some tools that offer government is largely what we are doing that for us to be able to make decisions about how to blend, maybe for the rest of our careers, for the resource -- where do we source, from our view, the service catalog makes it a lot easier.

In summary, basically, the bottom line, trying to be the world as a commodity to get the cost down what is the strategic differentiator and a lot of those are centralized IT around the campuses and so trying to figure out how to support that and had to provide infrastructure and services have to subsidize and remove barriers from technology and limitation and resources and alignment and there is nothing that jumps out is a new strategy that from our view, service catalogs went from being an interesting concept something we view as our ability to do this and to leverage it and stick with it is how we are going to transform our IT and ultimately impact of our situation. That wraps up our slide. Thank you, folks online in the room for your time. We now have some time for questions. Another similar monitoring questions from the online community and for those of you here, we have a marker for on a stand and ask you to use that so the online community can here. Any questions? >>

 Given that there are a lot of people involved in departments involved and each service have you identified service owners and if so, what is the role of the service later?

That is a good point. So as far as the centralized IT, who owns the service and had a week, we talked from a central IT perspective of what we are doing and how does that fit as you get outside of that and go for the 20 million central IT spend 20 million -- will we did at UN L. as part of the IT task force last year, we asked the largest IT organization on campuses, sometimes getting an accurate count of how many IT organizations are on campus can be challenging but we asked her how the defining what services they provide what resources they assign to that.

That is not nearly as rigorous a process as we described today that we think are those that are interested, most of the services that were involved beyond and are central colleagues, raises a good point because there have been some services that have been provided to others on campuses that come from entrepreneurial centralized IT campuses so it has been outside the scope within the spirit of your question, I think identifying who owns those and we can do to help that is going to be a big benefit. This touches on the enterprise architecture perspective that temperately mentioned earlier about the mainframe commissioning and our next complementary push is to do impress architecture work sometimes at the University of Illinois and the University of California, Irvine and Mike time in those organizations, tremendous work has been done and tremendous benefits and not a tremendous concept that taking time and focusing so it is not all-consuming but it is very targeted and that will tie in nicely and help us get centralized issues.

Let me add that a more specific way person to administration, we recognize the need to assign owners to services and are going to invest in this and make this a living and breathing thing, that has value over time, we recognize the need to assign it to somebody and our hope is to eventually use information as a building block for better development of services and that is going to require performance matrix identification and the only way to logically have that happen to have somebody responsible for each of the individual services at right now is my responsibility at a high-level to keep this fresh and there is no way they are not going to be able to do that after having to report performance metrics and [Indiscernible word] and doing all of that. That is a very good question and that is going to be huge because we talked about the challenges and I have a feeling there is going to be a lot of pushback [Indiscernible word] assigned across the organization.

Other questions or comments or successes you have had in this? A lot of you are [Indiscernible word] with us.

High. I have a two-part question. The first part, how do you assign costs to an actual service and the second part of that, when she has a cost, to have to do a chargeback on matters that part of your overall budget? Forgetting money for the services?

Costing has been fun. Some of it is pretty simple. Some of it is pretty easy. He maintained this is software and ago Steve Allison type that is pretty straightforward [Indiscernible word] put our staff spend time on and as we started identifying the services and trying to align the time entry, 121 -- one-on-one and infrastructure cost [Indiscernible word] because certain things, there is a whole gamut of your services and that is where a lot of lines in the sand had to be drawn and allocation algorithms based on what our software, our current platforms estimating how much of that is directly related with the service or that service for a possible enemy virtualization world, that is a challenge in and of itself and there have been some judges -- Judge McCausland guesstimates along the way and overall, because are not a chargeback organization, [Indiscernible word] because I can afford to do that and be paying for it and to see how much value we bring, that's how much it would cost you... how much are going to have to pay for it and [Indiscernible word] the chargeback or not think that is where we are going, we have to be scientific about it where possible. Submit that is one area the contrast in and from the campus perspective we do a lot of chargeback and I'm trying to do this to more of a hybrid model seceded off the top for good chargeback, it is a different set of challenges. It is good to be in the middle somewhere and tie into your question, real-world impact from this, I have been holding off having a meeting with our vice chancellor for business and finance, that is a good excuse but she has been a great partner and I look forward to conversation and the topic is, what are you going to do about [Indiscernible word] are chargebacks another some things we can do to eliminate some of those user charges so there is not a barrier to technology and we know that chargeback value changes behavior and that can be great and that can be a real problem so we have a pretty tight set of standards for the entire campus. Around service centers at UN out and designed to recalibrate every year and this would be helpful for us and this one example of that, trying to say that our networking is a big chunk of artwork chart and I've understand how we break even with that and be able to adjust in the future saying, here are services that are more of what we would chargeback out of [Indiscernible word] could even consolidate some of those? Thank you.

How to choose decide to define what a customer is persister other stakeholders do you make distinction between the term, customer and consumer?

We did not make that distinction between customer and consumer although it may be very helpful distinction because it is hard. You would think that it would be very easy to say who is your customer and it hasn't been. We have direct customer selling of indirect customers. Which is how I would describe a consumer on some level. I talked about the internal versus external facing customer. Are we our own customers? And this is a whole different challenge I think are a different kind of exercise versus Central administration to do that as it is for the campus IT department so I don't know that I have a very easy answer for you. I think every institution probably looks at that a little bit differently. One of our biggest customers in Central administration is our president. You have an 8020 rule, you develop a process for 80% of your universe and not for the 20 or 9010 or whatever, is that 1% that we jump to every time something common issue or a request comes in, he jumps very high and quickly to respond and so he is a very important customer and he is one. For we have, we do service a student do we support the student information system and that is a huge base but then it is in direct customer as opposed to mark as a health network, all of the students were going to come it is very very direct person-to-person sort of provision of services. There are many different ways I would say we go through ways of identifying customers and how you respond to them and down the line. [Indiscernible word].

That is a good point and I think another complexity to that, an interesting question, we're not doing more partnerships with more state governments have limited it wants local government beyond that in those organizations as far as how we're going to figure out actually cost and the fine customers versus sponsors, despite a challenging and I think what I have seen, success for, trying to be consistent. If we try to get it perfect, [Indiscernible word] but if we can be good and useful to us and helping us be more effective, and we can crosss some of those lines, occasionally being arbitrary, that can help us be consistent. At least, we will change and improve it over time but we are not all of the place on the same question so it gets easy to look at it and say perhaps, this doesn't make perfect sense and my response, from our staff, for the partners on campus, it makes good sense but it certainly -- [Indiscernible word]. >> I think I have two questions. I think you should as a snapshot of the kind of [Indiscernible word] the UK. The question would be, have you found any dimensions that you focus on that have been especially helpful to you in analyzing what you do or pretraining your story to others? Students first instruction for this college versus fat college, production support versus RND versus new development in those kinds of things. That is question number one question number two I am new at my institution I've been talking with my staff about these kinds of things and they're very accepting aware moving on things one of the most reasonable questions I asked, what is going to be different because we have done this? Can you all, if you haven't already and I might have missed it, give us a couple of examples of specific decisions that were made or action should have taken because you have done this? Thank you. Submit Atlanta the latter part and asked [Indiscernible word] to answer the first part. You are right. That is a real question, that is what makes it different. And one example for us, looking to define, moving from e-mail and migrating to e-mail and [Indiscernible word] staff and helping figure out what that service, the service is easy to conceptualize and the cost behind it was very helpful for the looked at what would cost to not only run a e-mail solution for faculty both the migration and what the cost would be in Madison area that is not popped out in terms of people seeing it but it made a difference for us we are trying to figure out what the bottom line was for us and another one has been basically redoing a disaster recovery and once again, probably the least exciting thing that we could possibly spend our time on was preparing but it gets pretty helpful if we ever have that unfortunate big event. I know that some of you have had that. The bottom line for us we completely redesigned the disaster recovery, [Indiscernible word] the process and we are trying to rethink this and the entire disaster you recover process is around services, is not around the data center as much as which is services would be lost with the data center, and the loss of fire, for example for the different concept but a way of looking at things and that made a difference for us but those stories don't translate and I know we're out of time so I will ask [Indiscernible word] to add to the second part. Soon I will add to the second part, I know that [Indiscernible word] and the system has utilized information to make the justification arguments for new staff. In certain areas. One of the things that we've learned over the years, our vice president of business and finance, and our president, they aren't geared to or created to intuitively understand IT and how IT and what it costs and how it works and so to take it to a certain level and put it to, this is how it would affect you and the services that you use, have been really helpful. Just understanding where we invest in hardware and software, those are our biggest investments and our budget might be $12 million, half of that are more his staff and the vast majority of the other is hardware and software. We don't have a lot of play room. They're able to tell that story a little bit easier. With regard to the first one, if I were sitting on a canvas, definitely this kind of reporting by colleges or schools or whatever would be very interesting because they are probably investing different levels in their IT spend. But the way that we have traditionally done the reporting is the type of expenditure. Is it hardware, is a software, is that staff? Ongoing operational costs and will refocus on is where we should cut and travel and professional development and we have cut that to death and we are going to be granted with a number of advancements and that is not your going to have the savings that you're looking to have. The rabbi to cut hundreds of thousands of dollars out of date travel budget. So look at that landmass identify ways of keeping the lights on versus project work and administrative type of activity, we go to a lot of meetings and it is not really project related. We spent a lot of time doing things like that staff that is kind of a level at which we have done a lot of our reporting and has been very helpful. Thank you very much. Sumac thank you all very much for your questions.

[Applause]

 [Event concluded]