

Networking BILT 2-11-14

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Christina

Ann- Welcome thank you for attending the call, for CTC and NISGTC. Here is the agenda it is a full one we may have to do some follow up through email, we may have to cut trends down to make more fit. – Ann read the agenda- We are going to be passing the baton from Glen to Matt.

Glen- Traditional over the last ten years I have always kicked off the meetings with one trend, so lets start with something that we will be seeing at working connections which is VDI and the second one is the importance of sensor in every things, that again is getting closer and closer. Open it for comments on these first two.

Jeff Whacker- let me go ahead and say yes we are getting closer to where the sensor things is powerful, the situation is getting here faster with smart sensor, gardener state has the internet of everything. We look at smart phones they are not just smart phones. Intelligence that is embed in the world around, the machine with big data and analytics , it all comes down to the environment and sensors.

Glenn- Can you talk about how networking when we talk about big data.

Jeff Whacker- The analytics that can then drive those local actions, what this drive is a huge huge increase in the data and the communication around. While we still have intelligence it will be connected to the cloud.

Glen- I know we have someone on from cisco and juniper so it would be interesting what we can do . Someone came up with the fog recently its below the cloud.

Nic- our position is on the side of the softer side of vulnerability have . it becomes important to not have everything go to the server , some of this can happen locally which will call for people to understand the network.

Glenn- How do you see this impacting students graduating in 12-24 months.

Scott V- I do not know that I have more to say than what you said, we cant send the data back some of it

Charle- Data on a move, some have not internalized where that is going to take the industry

Matt- Malware has gone out 44 times more in previous years , its incredible

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Glen- Security 2 years ago

Ann- Would you commit too that I find a lot of people who come in and talk about getting a cyber degree with out skipping networking

Matt- You can not ask a carpenter to master cabinets with out fundamentals. How can you ask someone to protect a network if they do not understand it.

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Bob Thomas- The security folks often say no when you ask for a new software in your area because they do not understand the software they only know the security software.

Matt- you can start to see big businesses sprocuring companies and merging the techonologies, its going be this type of thing

Glen- Intel has already announced that they are going to be including more secure

Carolyn corbin- as I listen to this those that know me social political person, there is going to be a priviacy push back it could be an environmental . Some people come quiet strong with push back about their privacy.

Jeff- the law that is lacking not the technology

Carolyn- I think that there is going to be a lot of people push back

- What we are talking about here is the security of systems to keep people out of other peoples things.
- If security can actually prevent things from actually happen then it should bring economic wealth. You have to teach students to solve big issues.

- Security is going to become an integrated effort, so networking is going to have to go back and learn some security, how many disconnected devices do you have now that you don't have wired. Basic networking have to under the basics
- Glenn- fundamental that they understand someone can come through a Voip
- When you talk about mobile and communication its all about experience not about technology
Glenn- The person that brought about business model that is what I do in my day job, is flipping the situation and finding out what they can do now.

Ann- in terms of accountability we do have four BILT teams in respect to NISGTC , we appreciate your time and with out you we wouldn't have our courses aligned with your needs. In aug 2013 the BILT meet face to face the BILT looked at certificates and degree three were not recognized we could not wait based on DOL requirements so we held a followup meeting in sept where the 3 were recongnized in closing the loops we have done what you have asked.

Glenn- Thank you for clearing that up it was important to make sure we managed that project properly.

Ann- I will check this for those of you that are on one of the other BILTs. Moving on to adding new programs and the KSA list, so in the mean time John maybe you can tell them why it had to change.

Jon H. – the legislation had us reduced semester credit hours,

Ann- This is the national group, the local groups are involved as well

Glenn- you probably should have a mix of memebers, a problem that we have a disconnect

Jon- I will take that under advisory and talk with Dave and see who is one. We must have a 60 hour degree based on the new legislation.

Isreal- we have that same issue in Minnesota, that we have to have 64 but you can go back and push back. This will decrease the tution.

Ann- This is happening across the nation, they had to change all of these degrees to 60 hours no matter what.

Matt- if we have a national bilt and then a local bilt, the national team provides general guidance the local teams then have to met that minimum standard worried that the local will ignore the standard and then we have everything is wonky.

Ann- the process is. Local bilt is suppose to take those KSA and localize what is being hired in that area.

Missed the pieces oabout local vs national

Jon H. – There are program Microsoft, cisco, cyber, and convergence. The one piece of flex ability that we did have was to keep as much contact as you can reduce one lecture hour so that would leave you 2 lecture hours and 3 lab, this helped us with Microsoft, and cisco, cyber was the one that we ran into an issue, that the ecommerce-bimeterics course will be removed and the bimeterics will be moved into other courses.

Ann- does everyone understand that the degrees and certificates are the same as you have already recognized that all they did was reduce the credit hour.

Tu- is the same credit hours as it at Collin v. Dallas.

Ann- in the wecm

Elizar- we are not there yet but we will be doing the same as jon has done.

Gisele-Maryland is also facing this 60 hr credit requirement, maybe we have a separate meeting that we discuss how every is handling it, and making the point that there is a role that business to place in this area

-If we are teaching the same material we just have one less contact hour just a little bit more homework then the content is still being taught.

Glen

Jon- in the case of networking degrees we able to get down to the 60 by taking course from 4 to 3 credit hours,

Ann- so I take it that since it is still covering the same content I am assuming the Businesses

Matt

The material they are doing the same evaluation and content then it makes the sense to recognizing them still

Business tentatively reconige these certificates and degree

Ann- move on to convergence

Jon H.- we have had issues with courses making and students completing in the convergence, we have deiced to turn this into a virtualizatin degree we have not had any virtualization in any of our courses unless a faculty member put it in on their own. The first change you will notice is new cisco course number to accomidate the new cisco curriculum that has been rolled out.

Where the change occurs, we are proposing doing away with the convergence technology course and replacing it with cloud computing, and vmware becomes a focal point.

- The whole class that vshpere, there is nothing in here about Microsoft, hyper v if the clod certification , you need to hit all of the big ones.
- Carl- on that note I appreciate that note, we only have so much space in our curriculum other than vendor specific.

Lets give them a bit of the fundmentals

Bill- The things that attracts the students is preparing for vendor certifications, if we tried to make it a little bit of this, the student then says I wont come out of this with a certification that businesses wont hire me. Students need to be introduced to virtualization early on.

Matt- VmWare is fairly simple to replicate so to take it for an entire class .

Spend a week on different types not sure how you could do an 8 weeks semester just on vshpere.

Glenn- the converegence degree, the grant programs have been based on voip, and wireless .

Why did we remove convergence

Jon H.- What the local asked is a course that focus on both including mobility.

Tu- when I am looking at the spreadsheet

John- the only additional

Tu- windows 2008 server I believe 2 yrs from now 2008 is eventually be not as value then. A degree program like with 3 or 4 course is marketable or not.

Nic- I was just looking at this, I see the very specific things you are focusing on, we have a huge requirement for those with junos training. There is not addition to any other netowrkign techonology, there are some ready made job.

Glen- Cisco is a big employer in the area as well.

Ann- How are we going to proceed can we have another meeting quickly because jon needs this now, and we need the other items talked about.

Tu- How soon do you need this.

Ann- or how do you resolve this I do not know what we do Jon- closer to this and how to cover the rest of the agenda. Glenn- in town as of all of next week. Matt- wont be back until the 24th.

We are going to have to have another meeting we will have to send out a doodle. This is critical this degree is important, I think that we have hit the wall, you guys have always wanted everything in KSAs but you cant have everything.

Glen- is there a possible to have a list of the eliminates courses

Jon- have to have this done by the feb 21st.

Ann- Tuesday 8:30am

We will pick up where we left off.

Networking BILT – Part Two

February 18, 2014

In Attendance

Charlie	Bess	HP
Vincente	D'Ingianni	Binary Systems
Tu	Huynh	Comerica
Yang	Lai	The IS Group
Candy	Slocum	Interlink
Brian	Smith	Dell
Bob	Thomas	DHS
Glenn	Wintrich	Dell
Nic	Xenos	Juniper
Kim	Yohannan	EMC
Israel	Aladejebi	Century College
Ann	Beheler	CTC/NISGTC
Greg	Brodt	Wisconsin Indianhead Technical College
Nancy	Cerritos	Wisconsin Indianhead Technical College
Mark	Dempsey	CTC
Kim	Ehlert	Waukesha County TC
Rafat	Elsharif	Milwaukee Area Technical College
Ernie	Friend	Florida State College
Joselle	Gatrell	Anne Arundel
Richard	Grotegut	Ohlone College
Molly	Guard	NISGTC
Jon	Hardesty	Collin College
Chris	Hasler	Waukesha County Technical College
Julie	Heitschold	Collin College
John	Huff	Polk State
David	Keathly	UNT
Eliazar	Martinez	El Centro College
Heather	O'Neil	CTC
Bill	Saichek	Orange Coast College
Helen	Sullivan	CTC
Saydi	Tillman	NISGTC
Christina	Titus	NISGTC
Dan	Tuuri	Ferris State
Keith	Whitehead	Eastern Florida

Welcome by Ann Beheler

Candi – I believe that you were all sent a link from Interlink about a Labor Market Survey and we do this survey annually. It is an employer-driven survey and the data is used to inform the educators, at the secondary and post-secondary level, of the employer's needs for high skill career opportunities. We do a report that is sent out to all participants and all the information is compiled in a way that an employer cannot see what employer has what need. It is completely confidential. I believe they will send out that link to you all another time and if you would, please address your employment needs. I believe Helen wanted this to focus specifically on IT, correct?

Helen– For the convergence technology center that is the piece that we use. I'm not sure if the DOL is looking for job forecasting numbers.

Ann – We could always use that information.

Candi – Great, so if you could address your highest employment need, for high skill careers. In other words, we're not looking at custodial or anything like that but we are looking at protective services. Anything that you would like to put within this survey, we would love to have it. We will be getting the report out to those that participate in June. Before we get that report out, we have a lot of work to do to get that information out to the providers by the end of the school year. I would love to have you participate and again, it is totally confidential. I am the only one who knows who participates. We go through a process; determining what careers that we recommend and it is based on the higher needs by employer's input. Again, I would love to have you all participate; you will be rewarded with a report and rewarded with programs that develop your workforce so thank you for your time.

Glenn - What role have we had the Interlink survey play at Collin College? Jon, maybe you can help answer this one. It is specific to employment in North Texas so it's a sweet spot for Collin College. Do we utilize that with any part of our course development, our updates, curriculum, our reviews or anything like that?

Jon – I do get a copy of that and I pass it down to those beneath me so it does play a part in our decisions.

Ann – With respect to the grant, we do use that when we go through and apply for the renewal of the grant; not so much now that we are on a national level. We are actually using EMSI, which is a product that gives us national data in these particular job areas. We have been working with InterLink for about 13 years now.

Helen – The other piece is that when Jon says he passes it down to faculty; it is helpful for faculty to know this because they can answer student questions. If students ask if they will be able to find jobs after the completion of their program, the faculty can acknowledge that. The nice thing, that when we talk about the DOL grant because it has four different technologies, one of them does overlap with convergence. Candi's survey does cover pretty much all of the job spectrum; the entire career cluster so it is pretty good data. We have sent some separate information to Bill Blitt in the Computer

Programming area in the past and I think the GIS program was interested so we have used this data in a variety of areas so it's been very helpful. For those business people on the call, we sent a link out last week after the call and we will send it again; we have information that some of you have taken the survey, but we will remind you and send the link out again. I just wanted Candi to explain what it is, what it is used for, and that it is confidential.

Ann – I would also suggest; this is just a model. For those of you that are in other parts of the nation might want to use something like this. I'm sure Candi would not mind you taking this and using it for your local needs; I'll ask Candi to be sure.

Helen – Richard Grotegut asked if he could get a copy. I will communicate separately with those from the CCNA network. What she does is specific to the North Texas region; there are some trends that we could extrapolate from that. We have a tool that we're going to be able to get some national data from and that may be an interest to you as well. We will be communicating more details about this to you in a bit.

Candi – I will be very happy to work with anyone on this because I do think it is very valuable.

Ann – Thank you, Candi. You've been a great partner for many years and we appreciate it.

Glenn - You sent out two sets of attachments yesterday. Which one are you using?

Ann – We are using the last one.

Glenn – Okay, thanks.

Collin College – Program of Study

Ann - We're moving right along to Collin College's program of study. Glenn, you can take over facilitating this part with Jon.

Jon – Shall we start doing a Computer Networking Program – Cisco? The key thing with the Cisco program and the Computer Networking Program, which will follow, is to show that we are essentially doing two things to try to get to the 60 hour limit. One is new course numbers for the CCNA courses to accommodate for the new Cisco curriculum. For our four semester credit hour courses that were meeting for 6 hours a week are now, those are being reduced to 5 hours a week that will equal this to 3 credit hours. As you look through this, the Windows courses, the IT Essentials course, the CCNP courses, the CCNA Security courses, and the Computer Networking Case Study course, they are all going from 6 contact hours to 5 each week and that takes us down to 3 semester credit hours. When you look at the number at the bottom right-hand corner; the grand total shows 61 credit hours. The reason it is not at 60 credit hours is because of the physical requirement which is currently part of the core curriculum with the workforce programs. I'm working with the Faculty Committee right now to work up a proposal for a new general education program that will tie in with our new core curriculum that is state mandated that will go into effect Fall 2014. Based on where things are right now, I can tell you that the one hour of physical education and dance would not be included in the program which would get us

down to 60 credit semester hours. I've been asked to get the proposal out by the end of March and that is why it hasn't been done yet.

Ann – This is what he presented last week, which was basically saying that the outcomes are the same for all of these courses that you recognized last August. You asked to see it and you gave tentative approval last time. Are you okay with this, business people? This time, because the outcomes are the same, it's a matter of students doing more labs on their own, more homework on their own, but the outcomes are the same. Is there any deflection or problem with continuing to recognize the Cisco degree and basically the certificates that are associated with it? The contact hours are the only thing that has changed.

Recognized

Jon – Let's do Computer Networking Technology now; this is our Microsoft program. I think what you'll see here is the same story. The Microsoft courses that were 6 contact hours are being reduced to 5 contact hours a week, which will reduce it to 3 semester credit hours versus 4 semester credit hours. You'll also notice that we have new course numbers for the Cisco CCNA programs for the new curriculum. Again, it is 61 credit hours and the 1 credit hour is the physical education and dance activity courses.

Nancy - Is this a proposal or this is in place now?

Jon- It is a proposal.

Nancy – What I'm wondering is; we haven't had to go to 60 credit hours, we're still at 70 so we have a lot more contact hours. I'm concerned with retention if we reduce contact hours.

Jon – I should say that in the state of Texas, we have a statutory mandate to get to 60 credit hours. The discussion that occurred with our faculty and our local advisory board was don't knock any content out in terms of topics covered or learning outcomes and don't knock any courses out, essentially. The best compromise that we could come up with was to reduce contact hours each week and put more on the students in terms of what they are going to have to do outside of the classroom and run with it from there.

Ann – The other thing that I can throw in here is that we have virtual laboratories that have been funded by the DOL Grant where they can do the Cisco laboratories any time, any place. We also have heavy supported tutoring, also funded by the DOL. I think we're going to be okay because we have other support services.

Nancy – Can I ask another question on those support services? When we were under a Perkin Grant here, we had tutors but one of the difficulties we faced was finding the students that were willing to tutor. We used second year students for first year students and we found that really difficult. Where do you find your tutors?

Ann – We scour; it is not terribly easy but right now, we have 9. We just added three tutors. It's not trivial. We are hiring outside of the college as well as current students. I'll be happy to talk to you about it. Also, Richard Grotegut asked a question on the chat window: why are we doing new numbers for the Cisco program?

Jon – The Cisco curriculum changed last year. Essentially, they have taken the content for Cisco 1,2 and 3. In the past, CCNA 2 was routing; CCNA 3 was switching. What they have done is they have compressed that and they have embedded some content that was at the CCNP level and broke it down into CCNA 3 and 4. Now, CCNA 2 is basic routing and switching. CCNA 3 is advanced routing and switching. There had been a number of learning outcomes that had been CCNP, pushed down into CCNA curriculum. What happened was this last summer; they finally got the last of the curriculum rolled out late last fall. We've had to, prior to, changing these course numbers; what we've had to do is we've had to take the new outcomes that Cisco mandated for the courses and add it to the outcomes that the state had already mandated. In a sense, the faculty members were having to teach the old curriculum and tie in the new curriculum. When they go to the next course, some of that content gets hit again and it turns into a timing nightmare. That is why we had to get new course numbers to go to the state and let the state know that these are local needs courses so we don't have to teach both sets of curriculum essentially. Over time, in the next year or two, the state will see everybody taking these efforts and start putting together new courses and we'll have to adopt those course numbers when they do come out.

Ann – Let me translate for Richard, because Richard runs an even bigger Cisco training center than we do. In California, you don't have common course numbering; in Texas, we do. Common course numbering has the outcomes very specifically laid out for any course that is taught in the state of Texas. So when they change the content, they change the numbering; that is basically what it boils down to. Again, in California, you don't have common course numbering so it is not quite as tightly tied. Another question came in: There was quite the discussion last week about moving to servers 2012. Why are you staying with 2008?

Jon – I'll start the process with the faculty and we'll move towards getting a transition occurring in the next year. I can't do that right now.

Ann – Is everybody okay with that?

Glenn – I'll be the first to say that I'm okay with that. I guess you can only do, what you can do, right?

Tu – I concur with that.

Ann – Okay, so moving on in the next year. You will all be okay with that? Are we all still okay with continuing to recognize this degree and the certificates that go along with it based on changes?

Recognized

Ann – Let's move on to the convergence degree since that is what is left.

Jon – To accommodate the concerns that you all expressed, what we propose this time is that the wireless course is a requirement; you will see that in the first semester in the second year. You'll recall last week, we did not have that in the curriculum but now it is a requirement. The key thing is that we would propose Cloud+ replaces the Survey Convergence course. VMWare would replace DHTI to build some virtualization into the program. In order to make room for incorporating the wireless, what we proposing now is that students take CCNA 1 and 2 to take advantage of the fact that Cisco has embedded both routing and switching into CCNA 1 and 2. We would open having two electives; those two electives, among the choices that students would have, they can choose to take voiceover IP; that would be a recommended elective. They can pair that with something like Security+. If they wanted to do a little more about understanding the fundamentals of analog to digital conversion, we have a course in digital signal processing that they can put in there as an elective option. We have a co-op courses that could be available as elective options or they can choose to do CCNA 3 and 4, if that's what they wanted to do. The result is the wireless piece is a requirement course, the voiceover IP would be part of an elective option that students can have available to them and we'd be able to build in the Cloud, build in Virtualization. In addition to the changes associated with the 4 semester credit courses going to 3 semester credit courses and the new numbers for the Cisco class.

Ann – What are your questions?

Glenn – My question is more to the group than to Jon. We recognize that you have to get to the 60, which is hard. It would be easy to just say, "let's add 10 more hours." The value of the voiceover IP and wireless; definitely is great for the students who want to go that direction. Will it hurt students to not take CCNA 3 and 4? If they move forward, and take voiceover IP and cloud; what I'm asking people on the phones is: if you looked at their resume and they don't have all four, which means that they would probably not test for their CCNP, what would happen there? What would you recommend in that case? Maybe there is a certificate or an add- on education. I know at Dell, if you're hired in the Network, a CCNP gets you a Network Operator job, at best.

Jon – We do have a marketable skills achievement award that we aware to students that complete the four CCNA courses and that will still be available to the students. If the students decided to do voiceover IP and a co-op, or Security+, if they still wanted to go through the full CCNA certification, we could award them a marketing skills achievement award to show that.

Glenn – Okay, so they can self-select to do more than 60 hours but it wouldn't be for the degree.

Jon – Correct.

Glenn - That works for me.

Nic- I'd still like to see an elective for Juniper Technologies, perhaps if they didn't do the CCNA 3 and 4. I think there is a big market for this and I think you're missing an opportunity there so I'm throwing that in.

Glenn – I want to comment on that. I think it is a good idea to get a small TIGER team together and we and actually look if we could do a marketable skills award around Juniper. Would you take the CCNA 1 and 2 and two Juniper courses or would you not need the CCNA; what would it be? You're right; if the students already have the experience in Cisco and they see job opportunities for Juniper, if there was something that they can come back and get in two terms, taking two courses a term. Maybe they could get some type of marketable skills award around Juniper. I think would certainly benefit Juniper as a company and students.

Ann – I'm going to throw out an idea- I had a request for students who knew even a little bit about Juniper, one class that Juniper has been teaching is Junos as a Second Language for people that know Cisco. Maybe there could be a Juniper as a Second Language course offered as an elective. I'm just throwing that out there.

Bob – Let me ask the question; why are we moving away from convergence technology again? I think this was the biggest that stuck in my mind last week on the call. Why are we moving away from convergence technology? I understand that Cloud and Virtualization is out there but why not stick with the convergence technology degree and then give a certificate in Cloud Computing and Virtualization?

Jon – Fundamentally, my issue that I'm trying to deal with is that I have a program that is on the verge of being considered a low producing program with regard to completers. Last year, we only awarded three awards in convergence technology. A lot of students don't know what convergence is; it is not something that they are seeing a pathway for. We can do more advertising for it and more along the lines of teaching things. With the incorporation of some virtualization and some cloud into the KSA analysis for convergence; what we would like to do is take advantage of some of the positive PR associated with those labels. The students will see a pathway there; we're still getting the content covered, it's just a name.

Vincente – You need to market it. Whether you call it convergence technology or something else, it doesn't matter I guess.

Jon – That is effectively our argument.

Bob – Right, but you are taking out Cisco courses, the convergence technology course- all this so you could add a course in VMWare? Now we're right back to where we were last week with the VMWare discussion. It would be interesting to see the content of that ITNW 2375 actually is because I believe that spending 8 weeks on that is a lot of time for that. You can easily plug in a week of Windows, V Sphere, Citrix, and some of the other technologies that do virtualization; not just concentrate on VMWare.

Glenn – I agree. I know the instructors might not be comfortable with that because VMWare is their week spot but as the business advisory council has said for nearly a decade now, we don't hire people right out of a two year degree program to go in and start patching up VMWare or Citrix on a data-centered cloud solution; that is done by senior engineers but we do need the students to have an awareness and some of the basic capabilities to grow on. Having all of it be VMWare would mean that

they would not even have the awareness in the Citrix and the Microsoft space of which VMWare makes up 60-70% of the market but that sure leaves a big gap in what technology the students will be completely in the dark on.

Bob – It depends on how you're weighing the market because if you're talking about desktop virtualization, Citrix has a bigger chunk but I understand what you're saying. That is why I'm saying for this degree, the concentration on VMWare seems a bit over if it was more agnostic. In other words, teach VMWare, teach Citrix, teach the basics; this is what it is, this is how you set it up, and these are some of the quirks with each of them. That to me, makes more sense.

Glenn – To be fair to the instructors, since that is where we've done a lot of their training, their workshops, you could do a lab around VMWare and have more of the theory and table top be more around the Microsoft and the Citrix, if there are not lab capabilities available so it's not taking away from the skill sets of VMWare but as stated earlier, if we set people off from Dell to go to a VMWare class, it would certainly be less than 40 hours ___ skills in IT.

Bob – Right, it would be a 3 day class.

Glenn – I think there is need but it means instructors need to build out more curriculum on where we would move with that. I think what you heard last meeting and this one is the business community is saying 'we think you are limiting your students potential in the job market by not providing them with at least overview knowledge to be able to answer basic questions on Citrix and Microsoft, and be able to do a deeper dive into VMWare. If it's a data-center convergence program that we're moving towards, then VMWare does carry a lot of weight obviously.

Keith Whitehead - I've created the virtualization program and my initial course, we are on 16 week terms; but I spend 8 weeks on theory, 4 weeks in VMware, and 4 weeks on Hyper-V. So they understand the theory and now they will create and manage in both environments. As someone stated, VMWare is holding 60-70% now and I know there are other specializations like VDI; with the amount of time, at least try to get the theory and hands on time in at least those two environments, I feel that that provides a balanced exposure.

Bill Saichek – I added this last week and I'll still inject it again; I understand the needs of the industry. One thing is that it is really hard to set up a single class called a survey- it would be really hard to set up a class emphasizing VMWare and then having another class having Citrix, Hyper-V, etc, when you're trying to promote that class as a certification preparation, which is typically what the students are looking for; in addition to the ability to get a job. Having a certification from our colleges is one thing, having the certification from the vendor is another; they want both. For example, if we say that we have a Cisco course but it wouldn't prepare you for CCNA or CCNP; our enrollment would go way down. We're walking a very tight rope in balancing it. Now I 100% agree that we need a survey of all of those programs but I don't think we should do it at the expense of the certifications.

Ann – Bill, I'm just going to throw this out there. You could do the VMWare course and then spend a couple of sessions where you at least do conceptual on some of the other things in the market place. We've done that before too.

Bill – I agree, we do that already but one thing where it sounded like to me that it needs to be one third VMWare, one third Hyper V, one third Cyntrix. Am I wrong in that impression about what was asked earlier?

Glenn – I would like to see the certification continue, obviously; we need to prepare our students for certifications because sometimes that is what gets them past the HR filter to an actual interview. We're saying 6 weeks on VMWare, a week on Citrix, a week on Microsoft; not a third of each. If the key focus is to get them a certification to help them with that hiring process, that's good but they should be able to talk the talk on the other two. They need to know what the differences are, know that there are different coding languages, patching approaches, and that if they came in because of their certain VMWare and their basic knowledge of the other two, and then they could ramp up very quickly.

Bill – Yeah, that is what I was hoping. In fact, I think that we all try to do something like that already. We have to be very careful not to say that we know that we need to get students up to speed on more than one platform. I'm the master of in the way that I set up my curriculum but as I said, as the instructors and the curriculum developers, we have to walk that fine line of what industry really wants versus what the students will take because they see it in the catalog, and what will the school and the state allow us to do. We've have an interesting job ahead of us. Simply saying 'let's throw all this material and curriculum together' - we have to be careful doing that.

Vincente – Maybe it is a matter of marketing. If you call the class virtualization technology and then say in the description, a theory of virtualization technology will be discussed, and hands-on with VMWare will be provided in preparation for the certifications. That should probably cover it.

Jon – I can take the general concerns back to the faculty and gather some additional information on what is covered in the courses and bring that back to you. Dave & I can talk to the instructor of the course and get more detail about the theoretical components in the course. If that is our final hang up, I understand that. My question is if this is something that you trust me taking back to faculty about or is this going to keep us from attaining the BILT's approval. Is it a no or a conditional yes?

Bob – I think I'd feel a lot more comfortable if the name of the course was virtualization technologies and leave it at that and then you could add whatever virtualization technology in that. The course title is agnostic and you could add, based on what the current needs are.

Glenn - I like the approach you explained of having the certification included into the course description. I really like that.

Jon – I probably can't get another course description right now; that is probably going to be more than what I can get done right now. Like I said, I think knowing if you're recognizing the program right now so I can tell you what I can or can't do.

Ann – Where are you on changing the name of the degree and moving away from convergence?

Glenn – I do a fair amount of research. Convergence is all the things in the data center. Virtualization would've been a name I would've used years ago. Convergence is the wording now so I think we need to go there. It was a good marketing plan three years ago but not today.

Ann – what are you recommending?

Glenn – I'm going to give you Glenn's personal opinion because I do a lot of research with the current jobs and convergence. When we talk about convergence now, we are talking about all the things in a data center converging. That includes BoosterBoyb, along with your unified communications, whichever vendor you pick and also the data center communication. When we start talking looking at software defined networking, it is a convergence approach. Virtualization is the name I would've used three years ago, it was in vogue but it is not anymore. Virtualization is a given- everyone is doing it, everybody is virtualizing servers. You don't say that you have a virtualized data center; that is just not the terminology in the market anymore. I think that the name of tying into virtualization is outdated already, if not another year or two. I think it was a good marketing plan two years ago but not today.

Ann – So what are you recommending? You can tell that Jon listened during the last call and he listened very well in my opinion. What are you recommending?

Glenn – Every name that I have thought of, I could also think of a reason why it wouldn't be a good name. The one that I came up with last night as I was going through a few of them was IT Convergence- just that simple. Information Technology Convergence- it is generic enough to cover the wireless, the voiceover IP, the mobility, the data center. Convergence is the term. We have people like Tu and Mick on the phone. Unless you're a virtualization salesman, you don't about it as virtualization anymore. It's a bigger picture. Any other thoughts from the other people?

Ann - I'm going to say that on campus, which is going to require a pretty big marketing campaign. This is my opinion; I think that students sometimes are behind the curve of what you know in industry and I think it would be a pretty good marketing campaign but I don't think it's an insurmountable marketing campaign. I think we could put major flyers up and have speakers and that sort of thing; I think we could accomplish it. We did it before, we could do it again but I do think it would take a pretty good marketing campaign.

Glenn – Help me out- what would we be marketing? Is it the _____ of convergence or IT?

Ann – No, I'm talking about convergence. They just don't know what the word means; they are not out there in your day-to-day business world talking about this all the time. We've brought up numerous times about changing the name of the center but I don't want to do it anymore because we're too branded to change it at this point. The reality is that students don't understand what convergence is and if they do, they have all of these explanations for what it is. I'm not saying it's a bad thing, I don't think it's something that is insurmountable, it can be done. It would require a fair amount of marketing. I'm not saying it is impossible.

Keith Whitehead – From an industry standpoint, we are considered to be somewhat of a content expert so we are familiar with the jargon. We have people that are just coming in and have only been in the IT world for two years. One thing that came to mind as I'm listening to the dialogue is that maybe across the programs, we need to address some of the terminology so that even though we're teaching a Microsoft class, that we're using these terms so that students are learning them from the beginning. That is going to take an effort from all of us across the program.

Ann – It is easier for me if convergence stays in there as the name at least because if it doesn't, when I talk about our degrees, I'm going to have to give a two sentence explanation that whatever we name this thing that comes out of it, is basically the evolution of the Convergence Technology Grant. Whatever you guys come up with it is fine, I'll do it. The reason we haven't changed the name of the Convergence Technology Center, is every time we have brought it up, the business industry has told us to not change it.

Nic - I think convergence is a great term and I think identifying it with IT is a great way to get the new students understanding the verbiage and the way we express things. It might be worth the marketing effort.

Kim – I like convergence, I've always liked it. I think it is going to be hard talking to students; I just don't think they don't identify with the word. If they are looking for a program, they don't know what it means. I don't know if there is a way to marry the two but I think any good marketing 101 is give things away for free and then charge? I just think it's going to be hard when students put things in Google, you just don't hear students use that term. People in IT know it, but not people you're trying to attract perhaps.

Ann – To Glenn's point, maybe putting IT into the word would help. I don't know, I could go either way.

- I was going to say that the reality is, a few years ago when I started working with you, things weren't converged. Now we have converged, it is done. Honestly, convergence still sounds, to me, like the best word to really describe everything all together. Putting IT in front of it, might help and it's something that can be done as needed to attract attention but it still sounds like a good name to me.

Ann – Rather than micro-manage this to death, how about the business people send an email and I will forward it to Jon since I'm not sure that you have Jon's email. Send me an email about what you think about this program.

Helen- Would you want us to send out a really quick one question survey so that all of it can be rolled into one?

Ann – Yeah, we will send out a survey after this meeting; maybe a one or two question survey about what we could do because I don't think we could get concurrence from everybody about opinions, ideas. I'm hearing lots of different ideas going back and forth here. The certificate that goes with this is a subset of this program. I don't think you are necessarily ready to all ready to vote. I think if I asked you

to vote right now, I'm not sure we're going to get enough of you voting any what way to get an answer, quite frankly. This is the certificate.

Jon – The certificate is the same basic structure, it was dwindled down to the fundamentals. Cloud+ is in there, Cisco 1 & 2 are in there, the storage class is in there, and the wireless class is in there. There are two electives and again, they are the same elective options for the certificate to fill those two elective slots as the degree plan.

Ann – Are you okay with VOIP being an elective? It is back in here and people were upset about it not being there last week. Wireless is back in there as a required course. You were not happy with it being gone last week.

Glenn – I didn't realize, it is specifically wireless telepathy systems or is it wireless?

Jon – That is a state course that covers the basics of wireless in the sense of RF transmission of signals. As well as picking up some of the principles of cellular.

Vincente –The whole world is going- it's not just wireless telepathy; it is mobile computing. With all of the voice being transmitted the same way as the data over the wireless network.

Jon – Long term , we would like to work on a mobility course that incorporates some things the wide variety of ways in which you can connect to the network. That is just not something I can do right now with all the other things we have going on. The idea there would be to tie in the wireless communication channel, as well as the idea of bring your own device, as well as the security issues along with that but we understand. Long term, we recognize that probably need to move somewhere in that direction.

Ann – This is a course that we've used for many years and again we use common course numbering in the state of Texas. This is a course that we've used to teach, at least right now we use it to teach a cisco wireless class that I mentioned was obsolete; I think I told you that last week. We have CWNA curriculum that has been updated within the last year and it is aligned with the CWNA certification and more general concepts of wireless so it is not just wireless telephony.

Glenn – Do you guys include things like set up and installation and servicing?

Ann – Oh, yes.

Glenn – So it is wireless land technology and it has the telephony piece added?

Ann – It is. This is the only course that was there when we did the original convergence degree and that is what we hung it on. I think there is another wireless land course at Wecum now but again there is only so much change that Jon can deal with at one time.

Glenn – As long as it is covering the basics like I've asked. The name is weird but besides that I'm okay with it.

Ann – Okay, why don't we cover that in the survey as well. This is a subset of the convergence degree. We will just follow up through survey, get your opinion, and I'll forward it to Jon. Thank you all. You've been really good about giving us information on this.

Glenn – Is there work underway to get us a list of those that are on the local BILT so we can see if we need to augment that with somebody from the National BILT to round it out?

Jon – Yes, I will get that out to you.

Glenn – Thank you, Jon.

Ann – We would like to schedule the next job skills analysis on May 9th. We will send out the date to everyone. It is a Friday and I hope you can all participate. We will fly people in if you'd like to come. We have shopped the date as best as we can. We would like to have the faculty from Collin participate, at least for a couple of hours so they understand. We will invite your local business advisory people to come as well so they understand the process. It would be a combined meeting of the local group and all of you. We will go through the job skills analysis, we need to work on the KSA list before we get there to clean it up because it is kind of an amoeba that has grown over the last thirteen years and we have sanitized it a bit here & there. We finally reached the point where we can't add anything else so not only do we need to rank each one of the knowledge areas, we need to prioritize the items (1,2,3,4,5) so that the people that only have a certain amount of real estate to offer courses will know which items are more important; that would be the goal of that meeting.

Update from the DOL Grant

Ann – We did get a no-cost extension which puts us in business through 9/30/15. We do have curriculum in line for the four IT areas: Programming, Security, Networking, and GIS. We have lots of stackable certificates; that is a very important construct. Our students drop in and drop out because typically, many of them are looking for skills to get employed or to get back to employment. We are looking for completers; our legislatures across the nation are looking for completers. In fact, we are in the state of Texas, being funded, not just the people that occupy seats in our classes; we are also being funded partially on completers starting soon. The completers they are looking for are completions of certificates and degrees. They really don't care if someone drops in, gets two courses and they get a \$20,000 a year raise. Unfortunately, we think that is success but the legislature does not. We do have stackable certificates so they are more bite-size certificates that build on one another and anyone that is interested in that construct can contact me because we have lots of models across the U.S. We do have content written for 25 courses across 4 specialties and they are being put online. We only promised 16 courses and by the time we are through, we will have at least 40 courses. We also have 105 new virtual laboratories that have been released to faculty; 200 were promised and they will be completed by the end. At this point, as of 12/31, we had 223 individuals who have completed one or more credentials. By the time we're through, we will have 1500 people who have completed certificates or degrees and have been put to work. We're a bit behind at this point; 15 individuals have officially achieved employment as

of 12/31 but we're not able to count their employment until they have actually completely exited. Because of our stackable credentials; stackable meaning they get one and then they stack on another one on top and another one on top; so many of them are still in the process of stacking credentials. Any questions about NISGTC? We do have a job fair; we had one in January and we have another one coming up in April. We had 7 employers and over 60 participants. We have many people in the process of obtaining employment; last time I checked there were 4 or 5 that actually secured employment and many who are still in the interview process. Again, we do have another one coming up on April 30th. If your company is interested in participating in the job fair, it is a really good price- it is free. We will work with you. We also need a mentor for the virtual internship/externship. Tu Hyunh helped us last year. We only had three students last year but two out of three have gotten really good employment. We need one mentor this year and it takes 4-5 hours on webinar. This year we have 16 students so if you're interested in helping us with that, please let me know. The only time you need to come to the campus is during the final presentation of projects; it is a very interesting process. It is not a huge commitment but it is so beneficial for the students to actually interface with a person in the industry.

Bill – We're trying to do the exact same thing. Can Tu do a one page of your requirements or what you did with the internship so we can so we could show that to our industry partners to see if they would be willing to do that? I don't want to call it a job description but something along the lines of what is asked of you to do in this role.

Ann – I already have that written up for you; we will send it out. We're focusing on working with CE and their catalog is focused on IT. We're also going to distribute some new CE certificate via email for you all to recognize. Our schedule today is packed to talk about it. These certificates are more short term; with the termination of employment benefits at the end of December, some people need a short term certificates and we will be helping with that.

National Science Foundation

Helen – Mark is going to update you all on the Winter Working Connections that we just had and the Working Connections coming up in the summer.

Mark – Winter Working Connections was a big success; it ran for two and a half days back in December 16th through 18th. We had 41 attend which was a huge increase from the previous year, which was 28 in 2012 so that was a big jump. We had three tracks; we offered Intro to Windows, Command Line, and PowerShell. We offered Junos as a Second Language, which included a JNCIA Certification exam on the last day. We also offered VDI in a Box. Those were the three tracks so it was a big success for us. This summer we have Working Connections which is five days, longer in length. We're doing three; there is one in Appleton, Wisconsin with Working Connections North is on June 2-6th. Working Connections South in Jacksonville, FL is June 23-27th. As of now, I think those tracks are going to be WireShark, Citrix, VMWare, possible VCloud, and maybe a Cisco element; four tracks possibly. Here in Texas, at Collin College, it will be July 7-11th. We will have V Cloud, V Sphere; those are two tracks. We're also looking at Ethical Hacking, Mobile Programming, some sort of Citrix element, Linux LPI, EMC Cloud, and maybe

Cisco. Those are still tentative as well. Those are the three Summer Working Connections that we have planned this summer.

Ann – I'm working with Cisco to try to offer Cisco training in some spots.

Helen – What you're seeing on the screen now are some comments that we got from our Winter Working Connections survey so you can see how well that was received. They really do appreciate that. I was going to touch base on a couple things. I hope Charlie Bess is still on the line. Charlie was a key note speaker at the January MPICT Conference. He talked about mega trends in the world of 2020. He brought up a little bit of it and in some of his feedback comments from the February 11th BILT meeting; but it was very interesting and thought provoking. We got a lot of comments after that was over. There were probably around 250 people in the conference; it was heavily populated with California educators but we did have people across the country attend that and it was really well received. We are also going to presenting at the League for Innovations Conference in March in Anaheim, CA; at the AACC in April in Washington, DC. We will also be sponsoring a high tech conference in in Chicago in July. We have our National Visiting Committee in April 16 & 17th. This is also reporting season for us; we do a yearly combined survey called the ATE National Science Centers that rolls into western Michigan; they have a project grant and they gather data, which is done in March. We have more data for our evaluator in April and then the yearly report is done after. We have a lot of events and reporting; there are wonderful things that all of our partner colleges are doing.

Ann – The reason we present at so many conferences is really not for our health and to travel a lot; it is to talk about the various things that the center provides so that other colleges want to join the convergence college network and want to follow out BILT processes, as well as participate in Working Connections. Thanks, Helen.

TIGER Teams

Ann – We've talked about TIGER Teams a lot; these are the things that have risen to the top of the agenda for the next few months. I would like to send out a survey to you and see if you'd like to be involved in these TIGER Teams. I do think we need to figure out how to incorporate SDN (software defined networks) in our curriculum. I spent some time with Ron Halbach from Juniper and talked about how to incorporate software defined networks into the curriculum because it seems to be more programming and scripting related and in my experience, to some extent, those who do info structure may or may not like to do programming or may not be gifted in programming. Well, it's not exactly programming, it's more like scripting but how we actually go about including it in our curriculum is not clear to me and the time frame as to when we need to think about that is unclear so I think we need a group to work on that. I'm not sure if they timeline is really short on that but I do think we need to work on that. Secondly, this is a shorter time frame, I think we need to work on our KSA list in preparation for our next KSA meeting because we have met the wall; it just doesn't all fit. Jon is down to putting it all on a 60 hour block, period. It doesn't all fit and something has to go. They gave it their best shot on how to get things out of there. Some of it you liked, some of it you didn't but I think they did a really admiral job with trying to figure out what your wishes were from last week and how to address them. Hopefully

there will be a way to work all of that out. In reality, if we give everybody, nationally, a list of the KSAs weighted and then also prioritize because depending on the state that you happen to reside in. For example, in the state of Texas, we have AAS degrees and you could put 45 semester hours of technical courses in an Applied Sciences degree. In some states you can only put 16 or 15 semester hours of technical courses in an Associates of Science degree; that makes a big difference because if you could only put a third of we could put in, then you certainly can't put as many subjects in so I do think we have to have a priority list. I know Matt Glover brought that up last week so we need to make it as easy as possible for the face-to-face meeting that will occur on May 9th. We need to make it as easy as possible for the business people to work on that list so I'd like to have a group of people work with me on that. This next thing is something that has come up over and over again. When employers interview our students, they want to see evidence of our student's work; the value and content of student portfolios. How do we get student portfolios integrated into ours courses when we are shortening the contact hours? How do we get that done? Arguably, could it be homework? Is it homework? Is it a project? One portfolio project is the virtual internship/externship because it ends with a class project that is a presentation project. I think that has to happen but the time frame for that is not as critical; it doesn't have to be done by May 9th but I think it does need to be addressed. I will welcome you to contact me on other subjects for a TIGER team, however, maybe not for May 9th. These are items that we'll put on a list and we'll include that on the survey. We talked about the job skills analysis, and that is it for our meeting but we did defer several things. One of the things we deferred for the next meeting is a discussion of the HP Institute Certification. This HP Institute Certification; the people recommending this certification sent us some slides and I put the slides at the very end for you to all see them. This certification actually integrates business skills and technical skills. I'm not going to go through these but I'd like for you to look at these and maybe Google them and see what you think about this and if we should be looking at some of these certifications and we will talk about it next time. This is one of the things that I added to the presentation, which is why you got another email from me. If we go back, all the way up to the agenda, some of the things that got deferred; we need to discuss and take action on the BILT 2013 survey; you gave us feedback. We also need to take action on recruiting other BILT members to make sure we are well represented on all of the various technology areas that we cover. We also need to pass the baton to the new chair; we can't pass it to Matt today because he is Singapore and I would suspect that he is asleep right now so we will be doing that next time. It's probably better that we do it face-to-face anyway. Any other questions or comments? Then I will say thank you and the business people will get a survey regarding the curriculum. We will talk with you all on May 9th. Thank you!

Meeting adjourned 9:51pm