

Cybersecurity BILT Meeting – August 19, 2015

Meeting Minutes

Welcome and Introduction – John Sands

Meeting Link:

<https://meetings.webex.com/collabs/#/meetings/detail?uuid=I6W5YUHQD18L8RUZ4ESWWLDCSS-B2LB>

Update of lab Development (For All Partners)

John Sands - I have a couple things that I need to run by the group, as this is our last BILT during the grant period. There are a couple things I want to talk about going forward: an update on curriculum and development. Any partners want to chime in—anything new about curriculum or adoption? It's a little too late for adoption and we're finishing up a few things in development.

John Sands- I didn't really expect it because this is the last grant period.

John Sands –Just to let you know a little about what we're doing about finishing up some of the courses... we've had reviewers review each of the courses and I can tell you on the Cyber side, I am really pleased about the feedback we've had from independent reviewers. There are a couple of minor suggestions on some of the courses, but overall, we've gotten really good feedback. There are no major changes in any of the courses based on the reviews, and most of the courses are now up and available through the DOL portal. I think we've done well on the Cyber curriculum on getting everything out and people using it. I've been to a couple conferences recently where we have shared the NTER site. It looks like there's a lot of schools interested in potentially adopting parts of, or some of, the courses that we've published. Overall, I think your input on curriculum development has been very useful and the curriculum has gone well through the system; I think it's going to be adopted very well. I've gone through all the reviews of each of the courses and there are no major changes.

Let me give you an update on labs... the Cyber labs are pretty much done. They are being shared through the NTER site, as well, although, most of our labs were developed to be deployed through the NDG NetLab environment. We manage it nationally and we now are up to over 275 schools that have adopted our labs-- all or part of our labs, which is pretty significant. That's up there with some of the publishers, when it comes to lab adoptions. We've done a pretty good job of getting the word out and other schools are benefiting from the work that we've done on the grant. In particular, the two things that I would like to talk about lab wise: we have the final labs that we had an approval on about 6 months ago: putting some scripting labs together for Cyber professionals; those labs have been completed. They are in data right now and we plan on distributing them this fall, so it comes down to 8 to 10 new labs on PowerShell. We also have another 7 to 8 labs on Python. The Python labs are really big, so there may end up being more; we may break them up into more labs. We can see after we deploy them, what people think, but they take a little longer than most of the labs we've done in the past. There's a good chance that number will go up to potentially 12 labs, but they are done. We had 2 really good developers, Mark Huffy out of University of Delaware, who worked with

NDG to do the Python labs, and Michael Messina out of Madison Community College who did all the PowerShell labs. One thing I'd like to report back on is that we ran workshops this summer for faculty and those labs had really good feedback; our evaluation was just outstanding. The only hit we got was that they would like to have more of them; it's too bad that the grant is ending because I think it would've been a nice area in which to expand additional content. Overall, that's what's happening there.

The other thing that I'd like to point out is we did a course on Information Security Management and we tested that course on labs this summer for faculty, changing a couple labs based on some feedback. Again, the biggest request was..."could we do more labs?" Time isn't going to allow us to do that. The last 2 projects in the Cyber area have content already done; it's really just finishing up the review process and formally publishing those. Overall, I'm very happy with what our course developers have done and the independent reviews seemed like they were pretty thorough; we got a lot of really good feedback. For those of you who are interested in reviewing the final products... if you shoot me an email, I can send you the interim website. You can go and look at the labs in our NetLab environment, so anyone that would want to try them, they will all be up and hosted by NetLab. I really appreciate the feedback from some of you that gave us specific kind of things that we would want to put into the scripting labs. It's worked out really well and has resulted in a new course approved at our institution, specifically in scripting. There's really not a lot more to report in that area.

Student Placement (For All Partners)

John Sands - As far as student completion and student placement, we've had a little movement over the summer. One of the things that we will be doing is going back in and tracking all students that hadn't been placed and talking to each and every student who has had a status change. Are there things that we can collect from them to self-report those placements? We're down to a point where it's too late for the states to be included as data reports, so it's really going to be up to students to self-report on their placements. We have just seen steady, continuous growth of our student placements at Moraine. Do any other institutions have anything to report on that?

Christina Titus- No, we're kind of in the same spot. Most of the schools, since this is the end of our grant, are trying to exit as many people as we can and get as many people employed as possible.

John Sands – Yes, I think all the partners are somewhat in that same position, at this point. The grant ends the end of September, so we're really near the complete end of it.

Progress on Scripting and SCADA Labs

John Sands – That brings us to the main thing for this meeting, and I just want to bounce this off members... I just wanted to share with you some of the discussions that Ann and I have had. We really would like to reach out to members of BILT to get support on this. One of the things that we've talked about is that this is a four-year grant and most of us know the shelf-life of Cyber curriculum; anything to do with IT, but specifically Cyber. The shelf life is not very long; for example, we printed our first set of labs and we've gone back to look at them and that was four years ago when we created our first group of labs and first couple courses. A lot of things have changed in that four-year period of time: operating systems, some have been retired now, new operating systems have been released, some of the tools that we use have been updated, and so on. We're always chasing our tail when creating curriculum in this subject area.

Carrying the Project Forward

One of the things that we thought about doing was submitting a proposal to the National Science Foundation to review each one of the courses that we created and all 240+ labs that have been developed. We could do it on an anniversary date, so we would do the first labs the first year we received the grant, the second year, and so on. We want to be able to at least go back to each one of these courses and labs to be able to refresh and update them to the latest operating system, the latest concepts and products that are out there, and so on. Some may take major rewrites, other ones might be minor, but through the major investments placed by the Department of Labor to create these courses and labs, you would think it would be worthwhile for us to see what the environment is like to potentially get a grant to go back and refresh all these courses and labs. What I'd like to know if the BILT thinks that this is something to go forward with and if someone would be willing to write a letter of support for that type of initiative. What does everyone think of that?

Frank Frydrych – I think it's a great idea. As you stated, these labs are going to be obsolete; it's completely possible. If you need anything from me or Rudy, for a letter of recommendation, let us know and we can definitely throw out one from SecureWorks.

John Sands – I appreciate that, Frank.

Matt Glover – I also second that; I think it's a fantastic idea. I was having a conversation with a couple of guys, a couple days ago, and I said I had been in the industry for 24 years and what I installed in the world order 24 years ago, no one is using today. Quite frankly, what I installed 7 years ago, nobody is using today. It's something that we do need to keep track of and focused on, and actually be vigilant. It should be in our overall programs... a constant recycling.

John Sands- I can't agree more. This field changes every day. I think there might be an appetite to actually support this just because of the investment that was put into this project. We traded a lot of content and it wouldn't cost that much to go in and refresh them, compared to the original cost of developing those things. Any other comments?

Matt Glover – I'm happy to write a letter, as well.

John Sands – I'm going to reach out to people individually to get their feeling about it, but the time frame is short, and we have to get something in, in October. I think we are going to look at doing something like that as long as we have support of the BILT.

Future of the BILT

John Sands – If we were to get this grant and some of the other things we're doing, what would the feelings be from the other BILT members of potentially keeping the BILT together. Maybe not meet as frequently, but at least meet annually or semi-annually to track the progress and see if we can get this grant to update the content that we're looking at. We really felt that this BILT, especially, has been really valuable in guiding our direction on what we developed. In some cases, we had some people reach out to us and help us with some things. I know Rudy gave us some specific things that we wanted in these scripting courses. In the Information Security Manager, we really worked with the NSA, KU's and some of the NIST NICE framework, so members from each of those organizations have been very helpful, so far. So, we think it would be very valuable to keep this group together.

There may be some changes, as far as, members, but I'm interested in potentially keeping the group together. I know that Ann and I both run National Science Foundation Centers and we're thinking the collaboration of these BILTs could be really useful for both Centers.

John Sands – Christina, you and I can talk and put a formal letter together to all the people that are on our list. I know Ann is putting together a final report of the total impact of the grant. It's not something due to the Department of Labor, but something she is doing above and beyond, letting people know what their roles are and the impact that this grant has had.

Christina – We can absolutely send out a formal letter to the BILT, that would be a good thing because we have a lot of members that are not on the call today.

John sands – We're trying to get a copy of the final report to each BILT member to show you what impact you've had. I'm sure we're going to identify all the people that have served on this committee, as well. So, you will know your role and all the contributions you've had and get some idea of where we're going in the future. Part of the grant with the National Science Foundation will be based on whether we get the award; we'll keep you in the loop on that, as well; there's not a lot to report at this point. You have been with us from the beginning, you know the process all the way through and we are winding down now. The only thing that I'd like to tell you is that several partners are going to have some level of sustaining these things, so the programs, of course, will be sustained. I believe the courses and the labs will be sustained, and there are aspects of the grant that other institutions have sustained. We've had some successes where schools waived graduation fees, and work with students is going to be integrated through our student success program. I know the story is pretty much the same across the board with the other partners; I can't thank you enough. I know people who work in the field, how busy you are, how much you're traveling, and everything else that is required of people that work in the Cyber field. I can't thank you enough for your contribution and your help over the last 4 years. We definitely will get something out to you as a final report, so you know what impact it's had and we'll get a formal letter out at some point, to see if we want to carry this on through to our NSF Centers. Then if we are awarded some type of grant to upgrade the curriculum. That's all I have today, there's not much more to cover. We're really winding things down at this point.

Industry Trends

John Sands – We normally do things like trends, which I'm always interested in, but I think it's too late to incorporate those into our DOL curriculum. That discussion may go over to our Centers at some point. I look forward to working with people from this group. That's it for today.

Matt Glover – I wanted to thank you for all the hard work in bringing this together and I look forward to that final report. I think everyone will be excited about what a difference they made in the nation around them.

John Sands – I appreciate that and it really has made a difference in the lives of our students.

Adjournment at 10:45am