Quarterly Cybersecurity BILT Meeting – November 19, 2014

Meeting Minutes

Welcome and Introductions – John Sands

John Sands – We have a good attendance today. Most of you probably know that we lost one of our dear colleagues and part of our leadership team. Erich Spengler passed away last Tuesday and the mood around here has been a little dreary. He was a brilliant mind that we were fortunate to have. He was really an architect for our virtual environment. We just wanted to share how much we were going to miss him. His impact will be felt worldwide long. Erich believed in partnerships with businesses so what we're doing today is a testament to what he wanted to do.

Ann Beheler – He just made such a big impact worldwide and he will be greatly missed.

Collin - CE Certificate to be recognized

Ann Beheler – I want to introduce Chuck Easttom who is the instructor for this certificate. We focused solely on credit for a long time and then we realized that a lot of students are not credit. Because of that, we've recognized the continuing education certificates in order to serve those students. This is particular program is the Certified Cyber Forensics Professional certificate and it covers many of the KSAs that you've already approved for the credit side that is already offering it. I'm going to turn it over to Chuck to go over this.

Chuck Easttom – I wanted to start with an overview of what this is and then I'll answer any questions that you might have. The CCFP was not something that we designed; it was something that was set up by the ISC^2, which are the same people that created the CSSIP certification. After a lot of years of research, they came up with a forensics certification. We're basically preparing people to take and pass that particular certification. The areas that we cover are the exact same that are covered on that test and they have been divided into six domains: legal & ethical principles, investigations, forensic science, digital forensics, application forensics, and hybrid & emerging technologies. Each of those domains also have subareas. It is a well-established curriculum. I don't work full-time for the college but I help with Continuing Education. This year, I have taught this course three times to the IRS, and I taught it a few weeks ago to the Secret Service. They curriculum was well received by both agencies and fits in their needs to do forensic analysis. One of the reasons that I mentioned federal agencies and law enforcement using this same curriculum is because a big trend in the security area right now is either private forensic services or large companies could have their own forensic department. The problem is that there aren't enough people trained in this to fill their needs. These private companies are desperately seeking former law enforcement because there aren't enough civilians in the area. It is definitely a growing field.

Ann Beheler – Does anyone have any questions? Does anybody see a problem with approving this? *Certificate was approved as an industry recognized program.*

MVCC - Network Security Specialized Certificate / Network Administrator Certificate

John Sands – As a group, you have approved the courses that make up these programs. We've added a couple of longer certificates because one of the goals of the grant was to have students complete certificates that took longer than a year. We've incorporated these so that we could include students that finish these in reporting. We have two additional certificates that incorporate all of our prerequisites, IT courses, and security courses. In the past, you've approved our cyber courses. These are just an extension that also includes the prerequisites. Our Network Administrator certificate is made up of a series of 11 courses. We start the students with our LAN 103 course, which is an orientation to security awareness. This course was specifically designed for our students when they leave, they could put an awareness program with their employer. The second goal of this course is to use it with business majors and students going into the medical field. It is a one credit hour course but it could be adopted into other areas and not just our program. From that point, we have our hardware and software. We've integrated quite a bit of security focused content in each one of the courses in order to reflect what has happened with the CompTIA certification. Our network+ was recently updated to meet the new CompTIA changes and cert. Our Cisco courses are also included in this, as well as the security courses that you've approved in the past. Our Network Security Specialized certificate is very similar but we have a few Microsoft stuff incorporated to this one. One certificate is the subset for the other. These programs exceed a year so we need to get them approved. We want to make sure that we could count the students that exceed the one year timeline. We've incorporated every KSA that the group rated as an essential part of the program. If they aligned to our program, we incorporated them. We also addressed a lab to each one of these. Jim adopted our courses and they are using our labs. It will be the same KSA crosswalk so it will be the same as ours.

Both certificates were approved as an industry recognized programs.

Rock Valley - (MVCC Affiliate) Certificates to be recognized

Jim Conley – We've had a long standing relationship with MVCC, and we're a Cisco Academy. We've used a lot of what they have done for a long time. We have a lot of certificates and degrees that align very closely with MVCC. We have a Cisco CCNA Security Certificate; that includes the Cisco, firewall, and security awareness. We also have the CCNP Security certificate that includes both CCNA and CCNP level courses. We also have a VoIP certificate, Cisco Networking certificate, to name a few. Some of these certificates go on for over a year. We experienced a downturn in employment in our area but our students are getting jobs because of this training. I think that speaks highly of the program and MVCC has been a big part of that. Our certificate composition is a little different but that is the only difference. Being able to use their equipment has been very great for us because we cannot get new equipment right now; it has helped our students a lot.

John Sands – Any questions on Jim's certificates?

Matt Glover – I think we should weight in. I think this is a good job and thank you for putting this together.

Lamar Owen - Everything that you have done sounds great from my end as well. Good job.

Lynn Hathaway – It sounds good.

Steven Miller – I agree.

Certificate was approved as an industry recognized program.

Industry Trends

John Sands – I'd like to share what we have been facing. One of the challenges that we have is that we're always trying to catch up to the adoption of new products and drop of support for old products. Some of our courses are already two or three years behind. We're starting to see some of the products we've put in the labs being dropped. We've also seen the integration of new adoptions. We're looking into giving our three major security programs a facelift so everything can be up to date. I'd like to get your feedback about what we need to look at about vulnerabilities in new products that we could be addressing.

Rudy Ristich – We're seeing a big interest in Endpoint Protection type technologies. There is a lot of technical subject matter around code and memory. As far as what clients are interested in, it is *** moving away from the networked centered things. Cisco/Source Fire is developing a tool that you might want to look in to.

John Sands – I'll definitely want to touch base with you. I want to give students at least exposure to the new types of threats that industry is seeing. Are you seeing this with phones and tablets as well?

Rudy Ristich – Our big mobile is for forensic type capabilities on a device. There is not something that exists right now for mobile capacity but it is definitely a concern. Another issue is architecture agnostic detection type of devices like a headset that runs on Java so that companies that have a 'Bring your own device' environment can maintain those systems and quarantine the threat.

John Sands – We're fortunate to have funding still. I think it would be great to incorporate some of these new types of technologies.

Rudy Ristich – If you need help with framing a grant proposal or anything like that, I can help when I'm back in town. Send me an email and we could sit down and talk when I'm back in Chicago in a few weeks.

John Sands – Any other comments on what we could include into these labs as far in the future as we can? It is a big task to keep these labs up to date.

Ann Beheler – I think it is important to point out that we're looking to change labs, not curriculum. We just can't get curriculum through the process fast enough.

Rudy Ristich – I actually do a lot of embedded stuff recently. The best way would be to hook up the raspberry pies to Net labs.

John Sands – That is what we're hoping to do; we want to connect them to the environment. We offered workshops to faculty last summer. We'll be offering a course in San Francisco, and we will probably have some type of class in the spring. We definitely want to encourage partners for the NISGTC to participate in that.

Rudy Ristich – It is a good area for supplemental focus. We get a fair amount of business doing embedded type things with TV and Roku; anything that runs Linux on the back end is pretty awful.

Having someone who can look at those things and assess the risk would be great to add to a certificate.

John Sands – Think it would be worthwhile to bring in some of those Rokus?

Rudy Ristich – I don't think you should invest in a product but the raspberry pie is a contained platform; it is more practical. You could use funds for platforms instead of a investing in a certain product.

Update of Curriculum Development (For All Partners)

John Sands – I can tell you that we're well on our way to finish everything. We have one outstanding course that isn't under review. We found a couple of issues that we want to update before we publish that course. We're taking a different approach. We're trying to incorporate some of the things from Isaca. We're close to 90% complete on the course so it will be under review soon. We're just wrapping up the curriculum. Every other course has gone through some level of review and others are complete.

Ann Beheler – We're being very careful about the entire curriculum that we put online. It is all on NTER.org. Our curriculum also has to be open source which is difficult because you can pick something up on the internet. We've gone through an extensive process with everything that we've put up. We're uploading everything on NTER, as well as provide it to DOL. We're very close to finishing up all of it. The only issue we are having is the shelf life of all of the materials. I don't know if we'll have the money to update it in the future.

John Sands – That will be our biggest challenge in the future. We started working on the curriculum three years ago, and those courses are starting to look old already.

Update of Lab Development / New Uses of Virtual Environment (For All Partners)

John Sands – The cybersecurity labs are just about done; we're really close to having it all completed. Most of the labs have been in use for a while. Most of our corporate partners didn't want to have to deal with tracking the licenses and the distribution of the DMs and so on. We took that on in a leadership role. We work with schools across the country and distribute a virtual environment. Part of what that requires is that we require in writing proof of volume licensing, and we keep a file on every school. Some of these new labs that we have come up are incredible; we've more than doubled our users. We had 80 schools using our environment before the grant and now we're well over 200. We have a major database that we track all of our schools. A lot can be contributed to our ability to build new labs in areas that we haven't been able to support before. We have seen over 50% growth over the life of this grant. It is a major impact that we're having across the nation. A report from NDG, says they have 120 schools using the major labs that we've created; whether it is part of labs or full labs. It is a big change from what we've seen three or four years ago. Part of what makes our system successful is that it is intuitive. It has encouraged schools to expand their programs.

Matt Glover – Do you have a plan to work with NDG to integrate things like an emulator in the info structure?

John Sands – NDG is going through a major some major changes right now with their product line. They are moving from Java to HTML 5. This has affected some of our labs as well. They are also going through a virtual model. They are really trying to incorporate have a single log in for authentication process. We're also trying to package these things if you don't have a Netlab, you can still use it. At some point, we want to create a subset.

Stephen Miller – Those labs have been fantastic for our classes. It gives our students the opportunity to have the hands on. I appreciate the work you have done.

Ann Beheler – We could use an email to that effect. DOL is getting very interested in hearing these stories.

Stephen Miller – I can definitely do that. I'll send that email to you.

Lynn Hathaway – Are you tracking who are using your labs?

John Sands – Yes, we're tracking that. We can also track the student usage- both individually and as a group. We could aggregate all of the systems that students are putting on the labs.

Student Completion / Student Placement (For All Partners)

Dave Tremunde– We are constantly hearing from students about their successes. In the last few months, we have been working closely with students to improve soft skills. With our team, we've been able to take them and work with them to get the career. This semester, we put together a professional development cohort that included students that have great tech skills but not soft skills. We had 25 students in the program and two of those have gained employments in the last month. This program has been a really strong asset. We've had support from CompTIA and other companies in the area. It just has been a great success for the last two years. Last week, I had five students attend a mentoring event in downtown Chicago. They get to network and learn from professionals. It has also helped us gain relationships to help the employment rate with our students.

John Sands – I know Matt has been a big supporter of this. They have great technical skills and we're teaching them the soft skills.

Dave Tremunde – The employers will ask the students the questions to break them out of their shells.

John S – Students are coming in on Saturday mornings to do some of these things but it is really paying off. We have partnered up with the SANS Institute to work with students and have them participate in competitions. Students who do well in the competition are invited back to a regional competition. It has been another thing that students have been involved with that has helped them a lot. All of these programs are resulting in students being better prepared.

Ann – I have to give kudos to MVCC because they have figured out how to charge for certificate and degrees. There are 279 participants that have completed a grant funded program. We've had good luck with completions and placement. What we've learned is that technical is only a piece of the pie for students to gain employment. Students need to know how to work a job fair and how to prepare for interviews so we've put together workshops for them. Thank you to those that have come to participated on these for our students. The sad thing is that it will be over in September. I think the support services have made a huge difference for the students. The virtual labs and support services have been essential for students.

John Sands – We're working with this grant and the SANS Institute to put together a special cohort of students. All of the students are recent veterans. 8 of them come to us with previous security clearances. We're putting them through a 12 month program and they will leave here with 6 security-related certificates. There are commitments to employ some of these participants. It won't be an easy task but these are a special group of people. They have to complete every certification. CompTIA has sponsored this, as well as SANS Institute. I think it is going to be an interesting group of people in this cohort.

Matt Glover – Can you please send me information on this?

John Sands – Absolutely. I'll send that over to you. We also have a bio on every participant.

Progress on SCADA
John Sands – We received a small grant from a local DOL. We've partnered with our grant to pay for equipment. We ran this by the group to create a series of eight labs. We're done with four of the labs. The rests should be done by the end of the year. We'll have eight labs that will supplement our current course content. Some labs should be completed and will go into editing in January.

Key Terms and Search Engine
John Sands – We're pretty much done with it in the cyber area. I'll give another demonstration once we have it up on the website. I'm really happy with it and we'll hopefully put that up.

Ann – We're also going to have a search tool in the DOL repository.

John Sands – Yeah, we have the rights to our search engine so we could distribute it to anyone using our labs. I'll give a final demo in the next meeting.

Adjournment at 10:20am
Next Cyber BILT meeting will be in February.