

**CTC BILT QUARTERLY MEETING**

**Conference Call**

**February 28, 2012**

**Attendees**

Carolyn Corbin – Center for the 21<sup>st</sup> Century  
Tu Huynh – Comerica Bank  
Bill Johnson – TDI Technologies  
Timur Mirzoev – Georgia Southern  
University  
Dan Myers – Citrix Systems, Inc.  
Larry Pereira – Alcatel-Lucent  
Candy Slocum – InterLink  
Jason Smith – Raytheon  
Scott Veibell – Cisco Systems  
Glenn Wintrich – Dell  
Steve Young – Experis  
Brenda Kihl – Collin College  
Ann Beheler – Convergence Technology  
Center  
David Keathly – University of North Texas  
Eliazar Martinez – El Centro College

Helen Sullivan – Convergence Technology  
Center  
Pam Betts – San Jacinto College  
Karl Dietrich – Lansing Community College  
Joselle Gatrell – Anne Arundel College  
Elizabeth Halweg – Fox Valley Technical  
College  
Dan Heighton – Clark State College  
Julie Hietschold – Collin College  
Nina Laurie – National ICT Center  
Christine Logue – El Centro College  
Lenny Portelli – Seminole State College  
Jackie Porter – El Centro College  
Jonathan Pulling – Lansing Community  
College  
Greg Teets – Clark State College  
Craig Tidwell – Seminole State College  
Richard Gilbert – FLATE Center

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**AGENDA**

1. Welcome and introduction - Glenn Wintrich
2. Industry trends - facilitated by Glenn Wintrich
3. Update from Job Skills Validation meeting - Ann Beheler
4. Review of eBook outline for ICT High School-to-College - Ann Beheler
5. CTC's interface with the DOL grant - Ann Beheler
6. Collaboration with other ATE Centers - Ann Beheler
7. Mentored College program changes - Helen Sullivan
8. Report on Winter Working Connections – Helen Sullivan
9. Upcoming activities and events – Helen Sullivan
10. Next meeting

**AGENDA**

- 1. Welcome and introduction - Glenn Wintrich**
- 2. Industry trends - facilitated by Glenn Wintrich**

Glenn – Started the discussion on content management. Over 50 percent of Fortune 1000 companies store sensitive data in a content management system. Growth is now measured in zettabytes. He also discussed the importance of business intelligence (BI) and the importance of students understanding tiered storage and hybrid systems of public and private clouds.

Karl – Asked Glenn to define big data.

Glenn – Said there is not a good clear definition. He gave an example: In 2015, the gigabyte equivalent of all movies ever made will cross global IP networks every 5 minutes. This is becoming the internet of things with machine to machine communication.

(Note: See similar data from a Cisco report on traffic trends:

<http://techblog.dallasnews.com/archives/internet/> )

Ann – Said machine-to-machine (M2M) keeps coming up, which creates a possibility for security breaches.

Glenn - But it will impact every company that has a regulatory requirement. He gave an example from a mid-sized utility company that installed a smart grid. You have to keep data for 7 years. They now process 60 gigabits per min. The regulation didn't account for big data. The utility industry will petition to change the regulation. You can see the issue on the networks they are running for the smart grid. Add 60 g to networks and you have an impact on carriers, storage and cost.

Carolyn Corbin – Will business analytics be a whole new career? It used to be called database management.

Glenn – Do a job search on business analytics and business intelligence. It's unbelievable. If you have job experience, you can make in the six figures.

Glenn and Carolyn discussed the possibility of our colleges offering something like that, and Ann responded that Business Analytics is one of four specialties as part of the DOL grant, which will benefit our colleges.

Glenn – When data is coming across the wire, the value of analytics starts to age in minutes. M2M programmed by humans can do BA in real time. We are going from database administrators to computers running in real time and taking action. This is a very interesting area for our students.

Glenn then moved into the area of social networking and social computing software. By 2016, 50 percent of enterprise users will be operating off a browser on their tablet or mobile device instead of a desktop. This will change the way we look at legacy email. What do students need to know about rich browsers on mobile devices? The number of social software companies will collapse to a few major players.

Carolyn and Glenn discussed the investment bubble and that only 10 percent of the initial players will make it in the market. You will have to have a strong business case for it to work. Glenn then added that a regulatory body will come forward to establish rules and standards, and businesses with enough money will drive it forward.

Dan – Citrix is heavy into virtualization. Real uptick in desktop virtualization. Windows XP not supported in 2013. A lot of upgrades to Windows7 then Windows 8 upgrade. Alternative is desktop virtualization. Migration instead of upgrading each desktop with OS. Coupled with BYOD push (Bring Your Own Device). Employees will bring their tablets or smart phones and have access to their corporate information. How will that work? It will be challenging IT departments to think how they are pushing data to the end user. Second big thing is the whole cloud. Not going away. Building and designing private, cloud convergence, seamless access to information. How do you seamlessly bridge private and public clouds in cloud technology? Third thing: HTML5 is coming on fast and strong and will take over Flash soon.

Glenn – There will be a high growth area with HTML5 skills. There is a shortage of skills. Go to abcnews.com and you will find a globe of the earth where you can spin and stop on news, sports, etc, to create a much improved user experience.

Many companies did not move from XP and are tied into XP. They have a bucket of money they have to spend on BDI. Devon, Citirix and Avaya are using unified communications over BDI. It has progressed over the last 6 months. Remote desktop creates new hurdles that need to be jumped.

Carolyn – A tsunami of work is being taken to the digital world, and a bunch of people in the middle class are being left behind. Jobs brought back are typical of 60s and 70s which are a jobs downgrade. Large numbers of people on unemployment who have moved into disability is going to affect our economy in the future. Are there government grants to help get these people off unemployment and to train them for jobs?

Ann – Said the \$500M DOL training programs partially address jobs sent offshore. Burt the \$2B earmarked for this program overall is just a drop in the bucket

Glenn – One of the trends I see from customers is bringing work back to the U.S. We predicted this three or four years ago, when we saw increases in salaries 3 to 6 months because they couldn't keep the employees. Most companies are having to send employees to 6 weeks of accent neutral training. Those people cost more and transfer to other companies, which creates additional expense. So, these jobs are being brought back to the U.S. The customer call center will continue to grow. It is also beneficial for companies bring work back to get tax breaks.

Carolyn and Glenn discussed farmshoring where data centers are in rural areas. Helen provided an example of a recent college added to the CTC network which is located in a rural part of North Carolina. They are expecting to have three large data centers move in and need to reskill residents who have lost jobs because of closed cotton mills.

Glenn – Mentioned another skill needed by employees regardless of their functional job – general knowledge of IT. Even if a person has a small amount of IT background, that is considered a big plus. It might be beneficial for students to take a couple of IT courses to supplement their major.

Scott and Bill echoed those thoughts, with Bill and Larry providing personal examples of where lack of IT knowledge can hurt a business.

A discussion followed on creating a certificate for non-IT majors to show IT competency. This would be at a higher level than the normal convergence class.

### **3. Update from Job Skills Validation meeting - Ann Beheler**

Ann – Reviewed the work done at the November meeting and reviewed volunteers for Tiger Teams. Ann said she would send out the job skills list and will include changes from the outcomes of the Tiger Team work.

The teams include:

**Data Centers** – Corey Kirkendall, Ron Halback, Kim Yohannan, Tina Thibodeaux, Timur Mirzoev, Ann Beheler, Bill Johnson and Tu Huynh.

**Telecom/POTS/Convergence** – Larry Pereira, Gordon Snyder, Tina T.

**Unified Communications** – Glenn, Ron, Tina, Scott Veibell and a college representative who is a Microsoft SME.

**IT Competencies for Non-IT Students** – Joselle Gattelle, Glenn, Larry, Bill J., Pam Betts.

### **4. Review of eBook outline for ICT High School-to-College - Ann Beheler**

Ann explained the project she is working on and said she would send outlines to the BILT to solicit feedback. She said locally, Collin will be working with the Frisco CTE on this program.

### **5. CTC's interface with the DOL grant - Ann Beheler**

Ann – The goal of the grant is to help graduates get jobs in networking, cybersecurity, programming and BI and geospatial technologies. Lead ATE Centers working on this plus 3 other colleges. Support equipment for virtual labs. Challenge to not duplicate effort between NSF and DOL.

Regarding the NSF proposal for a national center, Ann said she has been asked to answer questions on the proposal, which is a good sign. We expect to be funded and this will dovetail with the DOL grant. The BI is being done by a portion of the DOL grant, and we can do it there, but I would like to let you know we are pulling together national BILT competency models for the department of labor, if you would like to be involved. She said she would send out the website address for the BILT to review. These are high-level standards for two and four-year degrees. The skills are not as detailed as what the CTC BILT does. Our advantage is getting down to knowledge, skills and abilities. When students graduate, you know what the product is.

Glenn and Ann discussed the goal of providing workforce-ready employees. Ann said the DOL grant is judged by how many students they graduate that go to work and are retained in a job. – one of our goals be to provide workforce ready employees vs. certified or degreed' employees.

There was further discussion on the difference between convergence and network technologies. Convergence focuses on end-to-end communication and business solutions. Technology that can be combined in an interoperable manner to create a business solution.

Glenn – That really is important. When we start working with our students. They must understand the business challenge and what the business solution is that you require. That is what they expect students to know.

Ann – Discussed two capstone projects. Allows students to work in teams to address a real problem. DOL will move to virtual internship and externship. We ask business to work with the team to solve a problem. Students produce a portfolio which helps them get a job.

#### 6. Collaboration with ATE Centers – Ann

Ann – Explained the various centers which work with the CTC – the ICT National Resource Center in Massachusetts; BATEC also in Massachusetts which focuses on the computing side of IT; MPICT which focuses on overall ICT in California, Nevada, and Hawaii; and the Midwest Center for IT in Omaha, general IT. The NSF asked these centers to develop a collaboration strategy. We now have a forum to talk to each other in depth. We are not competing or duplicating effort.

Nina – This affords us the opportunity to collaborate in different ways as we have a lot to be gained. We are happy to collaborate and work together.

Ann – We also show how the DOL grant will braid into this, and we are leveraging everyone's work.

#### 7. Mentored College program changes - Helen Sullivan

Helen gave the following report on the Mentored College Program:

We attended a Synergy workshop in January in Albuquerque and worked on our Mentored College program and processes. During our deliberations we discussed how the program has evolved from one-way mentoring to a team of college leaders who help us with mentoring to a network of colleges who receive mentor, provide mentoring and develop materials and sources for sharing. We have changed the program name to the Convergence College Network and will be working on a one-page flyer to discuss the changes in the program and its benefits.

The revised model will include levels of engagement: suggested names of each level are – Partner, Associate or Member. The level of participation will help determine specific benefits, such as travel reimbursements to conferences and training workshops, access to resource materials including free curriculum, networking opportunities with peer faculty across the country, sharing online technology resources, etc. Their engagement levels include attending college network meetings, attending Working Connections, producing a yearly report, recruiting another college into the network, and holding an annual business council meeting.

The Convergence College Network Advisory includes Bill Saichek of Orange Coast College, Elizabeth Halweg of Fox Valley Technical College, Karl Dietrich of Lansing College and Ernie Friend of Florida State College in Jacksonville. They have all been working on recruiting at least one other college in their area to the program, presenting on the program at a conference and helping establish direction and feedback on our work.

Ernie – Added that the Advisory Board is working to get new colleges into the program to add value.

Ann said El Centro and UNT (the CTC partner colleges) help with getting the programs up quickly. It has become almost a community of practice with a mentoring element. It is a mesh network.

Tu asked whether CTC provides equipment to these colleges. Ann said the CTC does not provide physical hardware, but we will have virtual labs from the DOL and NSF available.

Lenny commented that working with the CTC has allowed him and Ernie to influence a Department of Education State of Florida Subcommittee work on the network services technology program. They are looking at that degree program and its core requirements to make changes at the state level. A lot of the information we know we can from a national view through the CTC and bring to a state level that affects our curriculum.

Ann reiterated the need for regional and local business groups, in addition to the national leadership teams.

### **8. Report on Winter Working Connections – Helen Sullivan**

Helen made the following report on Winter Working Connections:

We had 100 participants for the two-day conference and then 5 two-day tracks for Working Connections.

- Building Mobile Apps
- Cloud Provisioning
- Control Systems
- What's in the Cloud
- Final Cut Pro

We had 54 break-out sessions on Saturday and Sunday, and keynote speakers for lunch.

Keynote speakers: Candy Slocum of job market forecasting and how to conduct it for your region of the country, Gordon Snyder gave a National Broadband Update, Ron Halbach of Juniper spoke on Innovation in the Data Center and Robert Hamilton of the Cybersecurity Education Consortium spoke on the challenges of Cybersecurity.

We conducted assessments of all the Working Connections Tracks and an overall evaluation. A couple of points of interest:

- They liked the variety of the tracks
- They liked networking with peers
- Uniformly liked the instructors
- Every track had feedback that there was not enough time and/or not enough hands-on

They also liked the variety of presentations during the conference sessions.

### **9. Upcoming activities and events – Helen Sullivan**

Helen made the following report on upcoming events:

- League for Innovation March 4-6 in Philadelphia. Presentations on our Convergence College Network Program and Stackable Certificates and participate with the joint ATE Centers Booth.
- National Visiting Committee Meeting March 29
- American Association of Community Colleges, Orlando, FL., April 21-24 participate with the joint ATE
- Synergy Workshop, June 20-22, part of the scaling of the Convergence College Network program
- Working Connections, July 9-13 – Tentative tracks
  - Intro to Geospatial
  - Everything over IP
  - Mobile Device Programming
  - EMC (Cloud)
  - Citrix (or Juniper)
  - CyberSecurity
  - Business Analytics
  - Wireless
  - Vsphere
  
- HI-TEC, July 23-26, Denver, CO

## 10. Next meeting

Helen asked the group if there was a conflict on Tuesday, May 8. Since there was none, the next meeting will be on that date at 8:30 a.m. for a conference call.

### **Note 1:**

#### **InterLink Survey**

Candy also reminded members to take the job forecast survey that InterLink uses to provide data back to the CTC. The link to this survey is below and in the body of this email.

<http://www.zoomerang.com/Survey/WEB22EKAPKQWW5>

### **Note 2:**

#### **Security Workshop at UNT**

The University of North Texas is sponsoring a Security Workshop April 9-10 open to educators, students and business professionals. See the attached link for more information.

[www.cse.unt.edu/somic](http://www.cse.unt.edu/somic)

**Note 3:****Convergence Job Titles**

A brief search on the internet now turns up jobs that are categorized as convergence. The following are a few examples:

- Consulting company, Convergence Technology Consulting, with jobs – based in Charlotte, N.C.  
<http://www.convergencetech.us/About-Us/Careers.aspx>
- Convergence jobs (with convergence in the job title listed in: Illinois, Virginia, California, Kentucky, Texas) Companies using these titles: Dell, Cisco, Ericsson, Samsung, IBM,  
[http://www.indeed.com/jobs?q=convergence&qclid=CPq3o\\_Ldvq4CFS6htgod9jitbw](http://www.indeed.com/jobs?q=convergence&qclid=CPq3o_Ldvq4CFS6htgod9jitbw)  
[http://seeker.dice.com/jobsearch/company/Diceld\\_10430305/IT+Convergence](http://seeker.dice.com/jobsearch/company/Diceld_10430305/IT+Convergence)
- Companies specializing in offering convergence services to clients – Converging Technology Solutions,  
<http://www.converging.net/>
- In the Washington Post, listed as Convergence Desktop Technician jobs (jobs from around the country)  
<http://nationaljobs.washingtonpost.com/a/all-jobs/list/q-desktop+convergence+technician>

**Note 4:**

Karl Dietrich shares this link on an article about “**Big Data.**”

[http://www.cio.com/article/700804/Big\\_Data\\_Causes\\_Concern\\_and\\_Big\\_Confusion](http://www.cio.com/article/700804/Big_Data_Causes_Concern_and_Big_Confusion)

**Note 5:**

We received a request to show our current list of colleges in our Convergence College Network (CCN).

**Partner Colleges:** Collin, El Centro, University of North Texas

**CCN Colleges:**

Orange Coast College (CA)

Santa Ana College (CA)

Guilford Technical College (NC)

City College of San Francisco (CA)

Ohlone College (CA)

Fox Valley Technical College (WI)

Clark State Comm. College (OH)

Lansing Community College (MI)

Northwest Vista College (TX)

Porterville College (CA)

Louisiana Technical College (LA)

San Jacinto College (TX)

Diablo Valley Community College (CA)

John A. Logan College (IL)

Florida State College, Jacksonville (FL)

Seminole State College (FL)

Anne Arundel College (MD)

Wiregrass Georgia Technical College (GA)

Cleveland Community College (NA)