

Convergence Technology Center
National CTC Face-to-Face BILT Meeting
Thursday, November 15, 2012

Attendees : Helen Sullivan, Heather O'Neil, Bill Saichek, Karl Dietrick, Jen Spara, Eliziar Martinez, Elizabeth Halweg, Mark Dempsey, Ann Beheler, Ernie Friend, David Keathly, Oscar Benitez, Jon Hardesty, Julie Hietschold, Tu Huynh, Yang Lai, Kurtis Sampson, Earl Simpkins, Candy Slocum, Kurt Wall, Cicely Miller, Deborah Boisvert, Judith Roberts, Marisol Espinal, Diane Ganze, Larry Pereira, Kyle Ondthone, Connie Karcher.

Next Quarterly BILT Meeting:

Date

Time: 0:00 p.m.

NOTES:

Please note that this meeting is reviewing the KSA spreadsheet to rate the importance of each knowledge, skill or ability in the degree program. The BILT team will provide their rating and insight to each providing a base for identifying program strengths and weaknesses.

ACTION: Ann asked business reps for their suggestion for business primes in other locations and requested their assistance with contact information to expand the network.

Judith Roberts also presented a brief explanation of the DOL Grant and their goal to align the student's education with the current employment requirements. The focus is programming, standard convergence technology, cyber-security, and geospatial technology. Ann talked further about their DOL Grant ideas for working closely with IT companies to groom potential employees.

During the meeting we will utilize the KSA spreadsheet which has been rated by the DOL program already. Their business team is mostly large companies. Please keep in mind as you are rating that an average of 3 will rank the skill or ability high enough to be included in the curriculum.

Major OS Knowledge Domains

Larry – Need to move away from the phones and concentrate more towards the tablets : Android and Apple. This is the future.

Oscar – Most people bring their own device and pick what is most convenient for them.

Kurtis – Not very involved with IOS

RATING 2.5

Operating System Maintenance

Still need to teach DOS command line but combined with Line 21 (line 26)

Servers and Applications

DOL thought overview of all servers but not specifics on each one. NSF BILT team agreed.

Knowledge Domains

Oscar – Sharepoint is the default standard. A lot of our customers are building huge Sharepoint infrastructures.

Tu – agreed. A lot of legacy databases you can now push to Sharepoint. This changes the dynamic of how we share information within organization.

Deborah – What type of skill sets will be necessary within the following categories: Maintenance, content management, architecture?

Tu – Skills from a combination of all the above categories is important because you have to combine the infrastructure.

Larry – In order to store and make all the information available you have to have maintenance, content management, and architecture.

Ann – In Sharepoint, would there be an entire course needed? If an applicant knows Sharepoint without a specific class listed on the resume would that suffice?

Tu – There is a need for a course by itself. Students need to know how to build a Sharepoint environment.

Larry - As of now the value for Sharepoint is increasing drastically, but later that will decrease. Once a company installs Sharepoint server, it's there for a while.

Bill S. – Would that fit into infrastructure or server admin?

Larry – Server

Ernie – Would you hire someone specifically for Sharepoint or would you look for an IT person who has knowledge?

Larry – Either depending on the company.

Ann – We want to give our students a strong basis, but this may help them to stand out.

Tu – Keep in mind this is addressing entry level positions.

Other Hardware and Peripherals

Ann – The DOL group was not impressed.

Candy – I'm surprised gaming equipment is only a 1. Military and school districts are going to gaming instruction. It should be higher.

Oscar – UTD is developing a course on gaming instruction. We believe this is a good strategy to teach that discipline.

Tu – UTD is building a new building for gaming development. They predict more skills needed in that space.

Ann – Interface or gaming equipment combined? We're not programming, we're systems.

TU – Which gaming devices are we referring to?

Candy – Lockheed won't allow pilot to get into a cockpit until 18 months of simulator training. That is equipment not programming.

Ann – What about the interfacing with a network?

David K – UNT has one of the top 25 gaming programs. HTI covers a lot of gaming systems and programming to ensure students understand the platform and can be integrated into the home infrastructure as well.

Karl D – What about the maintenance or do you dispose of the equipment when it breaks?

Tu – You need to buy a contract. Buy tablets for end users and buy a contract for the maintenance. He's not hiring employees for maintenance service.

Ethernet OSI Basics

Skills 47-59 ranked as a 3, and then later lines through 95 – DOL people combined all together, Protocol related up to the transport layer.

Ann – Do we not do Gateway? DOL rated 2.2.

Larry – Line 64 Gateway should be one or two chapters in a book

Ernie – Can be, or used in telepresence, depending on the course.

Larry – This is not intended to be a deep dive, only an overview.

Larry – Legacy systems will be there for another 15 years especially in network infrastructure where middle areas have not upgraded.

NIS – Should line 88 be removed?

Larry – This has been outsourced.

NNTP – Line 89 should be removed according to NSF BILT group.

Telecommunications Basics

Whole section combined through line 137

Line 98 – Would have a low rating 2.

Tu – If you have to cover in voice curriculum, then it needs to be closer to a 3.

Larry- through Line 111 should be taught in voice curriculum.

Tu – Cisco voice curriculum requires you to know how to program the voice set.

Public Switched Telephone Network

Earl – Agreed that 113 need to be part of the voice network.

Line 102 rated a 2.6 which means it won't be part of the curriculum.

Ann –Should we be looking at revising the rank to include it in the curriculum?

Group – If you teach voice, these skills need to be there.

113-126 This will be around for a long time

Tu- Still a public network that we get service from.

Larry – Both voice and general. Some of the line items will need to be a chapter or an overview, but the details behind it need to be explained.

Tu – Cisco, CCNP, talk about the wired network connectors. Part of the PSTN network.

Convergent Network Technologies

Lines 129-137 - Rank as a 3

IPTV is low ranking however; Larry would like to see this included.

Line 132 bandwidth, should be included somewhere else?

The ranking of 2.5 means it isn't going to be included.

Ann – As a summary everything in this area needs to be included in the curriculum?

Larry – Compression is a four-year degree issue, but it still needs to be a topic for the two-year degree program.

Future employees are expected to know how to fix it with test equipment.

Ernie – Should cover this in voice in CCNP.

Tu – Please remove “bandwidth compression” and replace with “data compression.”

Bill – Not covered in CCNA.

Broadband Access Methods – 3 for the categories

Larry- Line 140-143, absolutely should teach this.

Tu – Loop conditioning, local LEC?

Larry – Visualize connection from the street to the house, it is an enterprise.

Ernie – Broadband DSL to your house. What do students need to know or how does this apply?

Larry – Student should be working for the company that installs. Local loop condition. Tech should have skills to trouble shoot with iPad onsite and interpret the data. Future employees will not make it to the interview unless he has the knowledge.

Tu – Take out “conditioning.” Just call it “local loop.”

Karl – LTE make WiMAX obsolete. True?

Larry – WiMAX viable in the foreseeable future.

Network Devices

Line 145-159

Tu – 156 and 157 are very important

Larry – Everything in this section needs to be included.

MAN and WAN Technologies-

Lines 162-173

Tu & Larry – This should be ranked at a 3 or above.

Wireless and WLANs

Lines 175 – 193

Larry – I would add “wireless infrastructure” to the list.

Tu – Over time the terminology changes and we will need to change the curriculum so students know what we are referring to.

Larry – I would make all of these a 3.

Tu – We implemented WLANs in our corporation. For meetings, we have laptops or mobile device to view a spreadsheet.

Larry – Within 5 years we won't have laptops, but \$1,000 will be contributed to a device of the employee's choice for tablets.

Tu – This will provide incentive for employees to buy their own devices.

Larry – Tablets are all wireless.

Larry – Mobile apps programming are not part of a two year degree.

Troubleshooting and Repair

Lines 195-203

Larry – I think this should be a 4, along with security. Troubleshooting is one of the most important sections.

Earl and Kurtis agree on the ranking of 4.

Larry – This is A+ for all intents and purposes.

Network Infrastructure Monitoring Management and Restoration

Lines 205 – 222

This section is a 3.

Tu – Data centers? Line 363

Ann, general comment was that data center built on other detailed technologies.

Need to add NOC in the data center section. NOCs can be part of a data center.

What should we teach about a NOC?

Tu - That is the part of the data center in which you use to manage your environment, cloud or private entity.

Larry – Agreed

Ann – Management tools are part of it. These things listed are part of building a data center.

Data Center - 3

Need to include change management policies – Ann promoted the ITIL track for Winter Working Connections in December, remarked that there seems to be a growing demand for ITIL. Tu and Larry agree it should be covered.

Network Security

Lines 224-246

sidebar comments

Dr. Bavanti – UTD, NSA is backing the university.

Kurt is recommending partnership

Dave Galley is linked with them and the collaboration was confirmed by Jon Hardesty

Ann – We work with 25 mentored colleges. Depending on the area of the country, the desire for a 2 year security degree may or may not be there. Anne Arundel has the demand because of the Federal Government nearby.

Kurt – Infoguard and FBI are working at UTD and looking for people to train and hire.

Ernie – NSA certifies school’s 2- and 4-year program. Working with Moraine Valley, lot of federal jobs, if program approved by NSA, there are scholarships, a student who completes a 2-year degree makes it easier to get a job.

David – UNT has that.

Ernie – can discuss the NSA option. The CAE certificate is desirable.

Ann – focus for the center to have everyone know about it. Anne Arundel help get recertified.

David – UNT does that.

Discussion that there can be a preference for four-year degrees over two-year degrees.

back to discussion

This is primarily covered in Security + course – Ann

Larry – Should be ranked at 4

Unified Communications

Ann - pick one of the vendors to teach

Larry – they all use the same basic protocol

248 – 281 these are knowledge areas covered by courses in the Lync product.

Ann – I did not pick MS over anyone else, but they have curriculum ready and work well with educational institutions.

Larry – Cisco or Avaya, you are going with products and may have a limited market. MS sits on many products.

Larry, Yang, Tu – 3 to teach Unified Communications

Ernie – chose Cisco because of the market penetration in Jacksonville

VMWare – 282-297

Oscar – why rated so low? Everything is going to a virtual infrastructure

Ann – Should we teach virtualization?

Yes

Ann – VM or Citrix?

Oscar - look at the prevalent market demand

Tu – VMWare and Citrix need to be in the certification area

Ann – the reason for the two vendors, we don't have room for a general virtualization class.

Ernie – we are teaching both Citrix and VMware. Citrix has market on desktop, and VM has market on server virtualization.

Tu – Hyper V, MS product. Product specific needs should be separate from general knowledge.

Ann – Are we in trouble if we don't teach virtualization?

Yes.

Tu – It will become an industry standard.

Yang – because going forward you'll need security in virtual servers

Oscar – mid to large size companies have 80 to 100% of environment virtualized.

Citrix – down to 346

Rank both virtualization together at 3 .5

Virtual storage – down to 361 – 3.5

Data Center – ranked at 3

Cable Media

Lines 369-374

(Should this be grouped under Network Devices – Connectivity – Line 145?)

Ernie – This is cable not network infrastructure. Very unique.

Larry – Break down into two sections

Description overview level, not build level

Safety and Environment Requirements – Line 377 – 390

Larry – one to two chapters but no more.

*****Certifications** – P14 of printout ***

A+

This class is big and always makes the cut.

Keep the class - certification

Network + - 4

CCNA and Network needed together

Linux – Karl went to a two test format to get certified, too much material for one course, split into two classes, but couldn't get the second class to make

Yang – Linux will take off

As more things migrate, Linux will be more in demand

Larry – there are so many books available on these topics.

Need to teach the first half of Linux – 3

Security + - 4

Advanced Security + (Ethical hacking?) – This is a stepping stone to CISSP, fill the gap between the foundation and CISSP.

Don't teach advanced security plus on networking degree.

Ernie, we have tracks. We have a core and students can specialize on VoIP, etc.

Larry – put Advanced into UTD partnership

Convergence CTP will be gone by the end of the year.

Skip Microsoft Certification level

CCNA – yes down to line 427

Cisco voice

Call Manager

Security

Wireless

All the certifications I'd vote for 3 and above – Tu. Students have the option to choose which path they go.

For the rest of all the certifications, a 3.

363 and 390, Data Center and Homeland Security

Candy – smart systems.

Tu in Data Center or Homeland Security, electrical grid. Redundancy put into business plan continuity.

Tu and Candy – Need to include an overview of smart grid.

End of discussion on job skills

Julie Hietschold discussed Microsoft certificates

Deborah Boisvert presented her research on Job trends –

Oscar – cloud

Tu – business continuity

Candy – labor market survey, health care occupations highest number, 2nd highest was IT

Security big in health care

Larry – security and OSHA (HPPA)

Security designed around the HPPA laws

Julie – Big data, health care

Julie gave a demonstration of virtual labs

2012 CALENDAR OF EVENTS

November

- 15 - BILT job skills meeting a.m., Leadership meeting p.m. (PRC Campus, Frisco)
- 16 - Technology Forum (PRC Campus, Frisco)
- 27 - Leadership Call - 3:15 p.m. Central

December

- 11 - Leadership Call - 3:15 p.m.
- 16 - CCN Meeting - 9 a.m. to 3 p.m., (PRC Campus, Frisco)
- 17-19 - Winter Working Connections (PRC Campus, Frisco)

January

- 3-4 - Winter ICT Conference (San Francisco)
- 8 - Leadership Call - 3:15 p.m. Central
- 22 - Leadership Call - 3:15 p.m. Central

February

- 5 - Leadership Call - 3:15 p.m. Central
- 19 - Leadership Call - 3:15 p.m. Central

March

- 5 - Leadership Call - 3:15 p.m. Central
- 10-13 Innovations Conference (Dallas)
- 19 - Leadership Call - 3:15 p.m. Central

April

- 2 - Leadership Call - 3:15 p.m. Central
- 4-5 NVC Meeting (Tentative)
- 16 - Leadership Call - 3:15 p.m. Central
- 30 - Leadership Call - 3:15 p.m. Central

May

- 14 - Leadership Call - 3:15 p.m. Central
- 28 - Leadership Call - 3:15 p.m. Central

June

- 11 - Leadership Call - 3:15 p.m. Central
- 25 - Leadership Call - 3:15 p.m. Central

July

- 7 - CCN Meeting - 9 a.m. to 3 p.m. (PRC Campus, Frisco)
- 8-12 - Summer Working Connections (PRC Campus, Frisco)
- 22-25 - HI-TEC Conference (Austin)

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