

ENGINEERING TECHNOLOGY ADVISORY COMMITTEE
MEETING MINUTES FROM OCTOBER 7, 2003

COMMITTEE MEMBERS PRESENT:

PHIL GOOD
ANNLEE HINES
LEE NEEL
TONY PHELPS
STEPHEN WILLIS
GLENN WINTRICH

COLLIN COUNTY COMMUNITY COLLEGE MEMBERS PRESENT:

ANN BEHELER
TERRENCE BRENNAN
PETE BRIERLEY
SERENA BUTLER
JEFF FANT
MIKE HARSH
TOM JONES
WAYNE JONES
AARAN LANE
JOHN PERRINE
ANDY RUSH
BOB WRIGHT

While waiting for chairman Glenn Wintrich who was delayed, Dean Ann Beheler opened the meeting and asked everyone to introduce himself or herself. She wrote several topics on the board and asked the committee to think about them during the meeting. The topics were: Wireless LANs, Netware Security, Converged Network Services, Wide Area Networks, Desktop Services, and Applications.

Dean Beheler covered administrative matters. She then asked if someone wished to move for approval of the minutes. The following changes were suggested: Wayne Jones and Ann Beheler's names were added to the list of attendees, Simon was corrected to SYMON and CADD was changed to CADD case study. Steve Willis moved for approval of the minutes. Xxxxx seconded the motion. Motion passed.

NSF ATE grant was discussed. The existing projects grant covers some of the equipment and work in the convergence lab, articulation agreements and educator-to-educator training. Most recently (August 11-15) the Working Connections event (in conjunction with Richland College) trained over one hundred community college instructors subjects including Network Security (Introductory and Intermediate classes), Microsoft Upgrading to Windows 2003 MCSA and MCSE, Multimedia, Wireless Networking, XML and Cold Fusion, WebCT, and VB.NET/ASP.NET.

A new regional centers grant proposal will be submitted October 15th. The focus of the grant is developing and adapting curriculum to train a convergence technology technician. This technician will be able to integrate IP-based telephony and data products with legacy telephony equipment. It is apparent that the need exists because CCCCD has done or will do custom training for Alcatel, AMX and Samsung this fall. The new grant builds on the previous grant that was instrumental in getting the Convergence Lab established. Dean Beheler asked that advisory members each submit a letter of commitment supporting the grant efforts. Collin County, Tarrant and

Dallas districts will develop the convergence curriculum, and it will be available for all the colleges in the region.

General discussion was that large companies as well as the telecommunications companies themselves have a large investment in legacy telephony equipment, and this equipment works. Therefore, it is unlikely to be replaced until 10-15 years from now. Therefore, the need for the convergence technology technician will last for several years.

Dean Beheler has talked with both Prosoft and Course Technology regarding their partnering the adaptation or creation of curriculum for convergence technology technician. Both are interested.

Annlee commented that this sort of curriculum would absolutely be useful. People are starving for anything on this technology.

Glenn suggested a plan be made to pursue development of the curriculum. He said that the risk could be that in three or four years Microsoft or another large company could come up with something to replace the legacy equipment, but I still think there would still be a need for someone to understand convergence technologies, especially how to integrate equipment from different manufacturers. He said that a year ago, they bought almost all Cisco routers, but now they have such equipment from several vendors, and there is a need for a person who knows how to accomplish the integration.

Dean Beheler moved on to curriculum revisions. The Security Specialization and Certification are not quite finished. CCCCD is one of eight consortium colleges working on a security curriculum. CCCCD is also incorporating Cisco and Microsoft courses in the curriculum. She asked Tom Jones to elaborate.

Tom Jones talked about Microsoft having a new set of Windows 2003 certifications that he felt we need to put in our computer networking degree in place of Windows 2000 courses. He also suggested adding one or two security courses to the basic computer networking degree. Additionally, he suggested adding an Information Security specialization. The biggest changes are on the Computer Networking Technology: Information Security Specialty degree that is now 72 credit hours. It covers the basics, Linux, Cisco switching and routing, and the program goes deeper into security in the second semester.

There are now several WECM-approved ITSY courses. There are 6 new courses developed by the consortium mentioned earlier. Barbara Taylor created the course on Security Management practices. The six courses include:

Operating Systems Security

Firewalls

Intrusion Detection and Response

Security Management Practices

Security Auditing

Computer Forensics

These courses will give students a broad range in the security field, but it will be difficult to get all the courses in due to the prerequisite knowledge required and the limit of 72 hours for the degree. Tom asked for feedback.

Annlee asked if there are any classes on how local network operates with the world at large? Tom responded that it has been considered but there isn't the time in a 72-hour certificate to get it all in.

Dean Beheler suggested it could be added and asked Annlee whether she'd be willing to help work with the college on this. Annlee agreed.

Tom added that it's a dynamic curriculum. He added that security changes on a daily basis and, hopefully we can keep our curriculum up to date.

Glenn asked where wireless is covered. Tom answered that there is no class yet but he will work wireless in.

Glenn also asked about radius security, PPN and wireless capstone courses.

Annlee brought up Cisco safe implementation. She said the exams can be taken in any sequence but this one should be taken last.

Dean Beheler said the timeline to get course and program changes into the catalog is November 1st and asked for help to look over the curriculum when it is complete.

Steve Willis touched on the issue of operating system patches and the importance of training students on the importance of implementing the patches.

Tom commented that patch management was something that is being addressed. Some companies are coming up with patch management software. He asked everyone to look over the curriculum for the next few days and let him know if there are any suggestions.

Glenn asked about getting a soft copy and Tom promised to get it out via email by the afternoon.

Glenn commented that with so many changes happening so quickly, there is a need for 8-hour seminars to be run to update a person's certification. He also suggested the student receive a new certificate that would be good for twelve months.

Glenn suggested people could logon to the website where a variety of courses would be listed. They would have to take maybe 7 of the 9 courses listed and then test to get certified. Annlee suggested that professionals who attend wouldn't necessarily have to test. Dean Beheler noted that there is a need for continuing education, one way or another, in this arena.

Serena Butler explained Cisco's recent curriculum changes. CCNP has a large PPN component. Version 3 went live in early October. All the students are in transition and are excited. They are also interested in Cisco security so they are trying to dovetail into it.

Pete Brierley commented that there is a lot of movement of curriculum from CCNP to CCNA. CCNA is more complex now, more detailed. Tests are more complicated and are scaring students away. Cisco is in the process of doing some creative programming to give partial credit for multiple choice. Cisco 1-4 is different; Cisco 2 has ACL; Cisco 3 is the most difficult part and Cisco 4 is pretty light.

Glenn asked whether Cisco had approached CCCCDD about a 40-hour Cisco executive course. It's really more for executives than technical people. Dean Beheler said that Cisco had not yet approached CCCCDD, but she will look into the subject.

Dean Beheler mentioned the college has suffered declining enrollment in Cisco courses and students are reluctant to sign up. As the economy comes back, things will pick up. Next spring there will be open entry/open exit courses. There may be students in one room from each Cisco course. The lab will be open 40+ hours per week. The courses will be on line with a live instructor lecture schedule as well. There will be an instructor available. This should offer more flexibility with the student's schedule.

Pete added that another advantage would be classes wouldn't be cancelled due to low enrollment.

Wayne Jones brought up the next item on the agenda, Electronics. He mentioned the need for the curriculum to be more timely and tied to workforce needs. He will send out the proposed curriculum to the advisory board so the catalog will reflect the changes.

IC Design Layout

Dean Beheler discussed need for people to be certified in the IC layout program. TI will have new facilities and are going to need more employees. Dual recruitment between TI and CCCCD is reaching out to high schools to participate in IC Layout program.

SMU/CCCD Cooperative Agreement in Engineering

Wayne brought up the next topic, the cooperative agreement with SMU/CCCD. To really get the partnership working well there needs to be a focus on specific areas and departments at both SMU and CCCCD. SMU students can study two years at CCCCD and transfer seamlessly to SMU. While students are at CCCCD, they will have a student ID from SMU and can participate in all SMU activities. There will be counselors on both campuses. There is also a strong relationship with UNT that now has a college of engineering and a new dean.

Learning Communities

There is a problem now with students graduating from high school who aren't prepared for math. The Learning Community offers as a single course a combined Engineering/Algebra class that makes math more relevant to students. They create engineering projects that get students excited about learning math. There will be another learning community course that combines Speech with an Introduction to Computer Networking course. This will help students learn how to communicate information in front of their bosses and peers.

Industry Trends:

Glenn said that there will be new facilities for Samaritan Inn, a McKinney homeless shelter. Local churches and the community provide all meals but there is a full kitchen to help them prepare the food. Cisco had indicated that they would fund some of the facility. Frito Lay is reportedly donating 25 computers. Glenn and Bob Wright went on tour of the existing facility and found uses for online databases. Glenn suggested that students design a program for database inventory and tracking of volunteers rather than using paper. An online database could also track meals and menus. There are people coming in to teach various job skills. It would be great to have an online job search. The question is, is this enough of a project for students so when they graduate they can have some real meat to their resume? They would need to word it on their resume to show what they did for the business and what benefit came out of it. The students should break down into groups for the project with each group handling a different part. One group could interview the client, another group do the site survey, another group develop the implementation plan, etc.

The next step would be the need for coaches/mentors. There is also a need for additional projects, integration with multiple vendors. There are lots of opportunities for charity work and learning for students.

Annlee asked whether anyone had talked to Dell. Dean Beheler asked her if *she* would be willing to talk with Dell and she agreed. Glenn commented that it would be a great opportunity for the fall semester. Dean Beheler added it could be a co-op opportunity and a chance to get a real team together. She suggested 20 hours for 16 weeks.

Visiting Professors

Glenn suggested bringing in guest speakers from the industry to tie in with student lessons. They could speak the first hour and the rest of the time would be spent on the lesson. This would have a real benefit for the students and help increase their retention. Dean Beheler mentioned providing webinars through the NSF grant. Glenn added that larger companies have ambassador programs and keep databases to use for guest speakers. It's a painless way for the corporations to give back to the community.

Wayne suggested extending it beyond just having the speaker come in for one session. They could become more involved for the entire semester. Glenn responded that it could work for evening classes but with budgets as tight as they are now it would be difficult for people to be involved full time during the day.

Annlee commented now would actually be a good time to ask companies because when the budgets loosen up the speaker request would already be on the list of things they may want to do. Dean Beheler suggested getting the PR department together with Glenn to help get awareness.

Glenn suggested they go around the room and each industry person touch on one of the topics that had been listed on the board at the beginning of the meeting. Glenn started by recounting what he's learned in industry. Wireless LANs area is extremely interesting with 802.11 A & G and other things tied in with it. Technology is moving forward. Security is a much bigger piece. The direction wireless is going ties in to the security industry. He's seeing a bigger shift to business processes and solutions.

Wayne commented on getting the wheels turning again in the economy. Innovation, what services deliver to the individual and how they make the individual's life better, not only in business but also at home? How do we excite the public? Exploring a more innovative spirit.

Dean Beheler mentioned a continuing education course – Personal Connectivity –and how it's becoming more common to have this. This course will hopefully whet the student's appetite to take more courses on hooking up to the network.

Phil Good focused on the sales group in his company. He noticed they are not IP-oriented. They need to move towards getting that knowledge. The company is going through a lot of changes. They purchased a company that is bringing more IP knowledge, but existing employees need to know IP.

Tony Phelps works with service providers. He's seeing a trend in more convergence technology. He's seeing a lot of metro Ethernet in hospitals that have branches in multiple areas that tie together with metro Ethernet.

Glenn asked about host based intrusion protection. Tony replied that it's getting big.

Tony has been working with customers, taking them technically through IP. He's teaching people daily. He feels that broadening core networking would be great. He sees a real need for IP training

Aaran said she's noticed an increase in co-op opportunities. She does placement after graduation and connects students with industry representatives. Aaran added that she's looking for people for a co-op advisory board and asked anyone interested to see her after the meeting.

Steve says he has a legislative mandate to serve rural Texas. An example of this would be a small town practitioner seeing a condition he's not familiar with and hooking up with a pathologist. He must make sure the

server is secure. There's a huge demand for wireless from medical school students. His school sees 70,000 patients per year.

Lee Neel works for financial institution where secure customer data is vital. They are moving to 'bigger pipes', DS 3's. He has expert technical people who don't know have QOS knowledge.

Annlee says she's looking for a Greenfield. Hasn't seen one yet. Disaster response planning, sign-base auditing, auditability of information trail has become important.

Jeff Fant mentioned his son went to a friend's house to hold a wireless LAN party. They got tents, and built the wireless LAN. These kids aren't in Cisco training; it's just something they want to do. They are learning IP.

Pete Brierley asked how long it would be before the telephone system became IP?

Tony replied that it's not going to be as quick as we want it to be. Glenn added that MCI, AT&T, Nortel, Alcatel products are still not universal. There's going to be a transition. The general feeling was that legacy equipment would be around 10-20 years.

Glenn asked to set a date for the next meeting. Meeting set for Tuesday, January 27th. Asked everyone to work in early January to get more people to attend these meetings.

Dean Beheler reminded people to send their letters of support and commitment for mentorship, speaker time, and other things everyone was willing to do to help the NSF grant.

Meeting adjourned at 10:27am.

GLENN WINTRICH
Chairperson

Date