Enhancing Your Personal Learning Through a Mentor/Peer Network While Growing a New Program

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What is Convergence?

- The blending or integration of voice, video, data and image into one secure flexible network
- Focus on end-to-end communications in a mobile world
- The bringing together of products and capabilities of multiple vendors so that they provide services the customer wants
Convergence examples

- A connected wireless network to devices such as Smart phones, tablet computers, and iPads.
- Cloud computing (both public such as Google and Amazon and private such as those owned by large companies)
- Software (apps) and the network delivered as a service
- Virtualization – from desktop and server to storage and network virtualization
What is the Convergence Technology Center?

- Regional Advanced Technology Center originally funded in 2004 by a $2.5 million grant from the National Science Foundation; renewed September 1, 2009 with a $1.5+ million 3-year grant

- Goals are same with focus on Green IT
  - Create convergence degree and certificates driven by business need
  - Provide professional development for faculty
  - Recruit and retain underserved students
  - Disseminate products and services
Who is involved in the CTC?

- Partner Colleges: Collin College, El Centro College, University of North Texas
- 20 mentored colleges in 11 states
- CTC Business & Industry Leadership Team (BILT)
- High school students, college students, re-careering adults
Regional businesses lead

- Quarterly Business & Industry Leadership Team (BILT) meetings
- Skills Analysis/job needs updated yearly
- Addresses constantly-changing emerging technologies and needs
- Enrollments increasing
- University of North Texas – BA in IT
Regional Demand

- Convergence Technology Center yearly job forecast surveys
- Respondents: CTC BILT Representatives and InterLink (North Texas business consortium)
- Survey results confirmed a growing need for convergence technology specialists in the region.
- InterLink also lists Convergence Technology as a main growth area for the future.
- Anticipated starting average salary: $46,300 (North Texas region with two-year degree)
Fastest Growing Occupations in the U.S. – IT 2008-18

According to the US Bureau of Labor Statistics, the 10 fastest growing occupations, 2008-2018 are in IT, and the area with the greatest expected growth percentage is included in Convergence jobs.

<table>
<thead>
<tr>
<th>Occupations (Two are fastest growing)</th>
<th>% change</th>
<th># of new jobs (in thousands) by 2018</th>
<th>Wages (May 2008 median)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Network systems and data communications analysts (4-yr)</td>
<td>53</td>
<td>155.8</td>
<td>71,100</td>
</tr>
<tr>
<td>Computer software engineers, applications (4-yr)</td>
<td>34</td>
<td>175.1</td>
<td>85,430</td>
</tr>
</tbody>
</table>

“Network systems and data communications analysts are projected to be the second-fastest-growing occupation in the economy. Demand for these workers will increase as organizations continue to upgrade their information technology capacity and incorporate the newest technologies. The growing reliance on wireless networks will result in a need for more network systems and data communications analysts as well.” – (Bureau of Labor Statistics, 2010)
And, Students can Transfer!

B.A. in Information Technology

- A new program from the Computer Science and Engineering Department at UNT
One example of a Convergence career
Implementing Convergence Program Requires:

- Developing a new or revitalized Business & Industry Leadership Team
- Determining labor market demand
- Determining the skills that are to be taught
- Training faculty for the new technology
- New equipment
Developing new curriculum and getting it approved can take many months…….
Implementing Convergence:

The Convergence Technology Center can help shorten this process by providing free services and materials through the Convergence College Network program.
20 Convergence Colleges in Network

- Orange Coast College
- Santa Ana College
- Guilford Technical College
- City College of San Francisco
- Ohlone College
- Fox Valley Technical College
- Clark State Comm. College
- Lansing Community College
- Tarrant County College
- Northwest Vista College
- Porterville College
- Louisiana Technical College
- San Jacinto College
- Diablo Valley Community College
- John A. Logan College
- Florida State College, Jacksonville
- Seminole State College
- Anne Arundel College
- Wiregrass Georgia Technical College
- Cleveland Community College
Convergence College Network

- Mesh Network led by Convergence College Network (CCN) Advisory Board
  - Individual College Mentoring, both administrative and program-oriented
  - Curriculum
  - Professional Development (some travel reimbursement)
  - Processes
  - Access to sources through network colleges
What the CTC provides

- Job Skill List that has been regionally validated
- Process for validating skills in mentored college region
- Degree and Certificate Patterns
- Curriculum in a box for new courses
- Detailed syllabi with learning outcomes
- Learning/Lab Activities
- Assessments
- Case Studies
What the CTC provides

- A lead faculty member to assist
- PI or grant staff as an administrative contact
- Training for faculty through summer institute
- Equipment list
- Recruitment plans and event details
- Peer networking opportunities with faculty from across the country
Convergence College Network Commitments

- Equipment and support for a lab (some virtual lab access)
- Lead faculty member
- Other faculty interested in being trained and in implementing the program
- Faculty and administrative time available to work with mentor college representatives
- Active and involved Business & Industry Leadership Team (BILT)
Convergence College Network

Commitments

- Validate job skills with BILT with our help
- Develop and implement a degree and/or certificate plan based on validated skills
- Develop and implement a student recruitment plan
- Provide brief, yearly report
- Participate in CCN conference call meetings quarterly
Convergence College Network Program has produced results – here are some of the highlights…
Enrollments in our Convergence College Network

Spring 2008, n=5
Fall 2008, n=9
Spring 2009, n=8
Fall 2009, n=8
Spring 2010, n=7
Fall 2010, n=12
Active group of four college leaders from Orange Coast (CA), Lansing (MI), Fox Valley (WI), and Jacksonville (FL)

Bill Saichek, Orange Coast
Karl Dietrich, Lansing
Elizabeth Halweg, Fox Valley
Ernie Friend, Jacksonville
Orange Coast College

- Largest college of 3-college district Coastline CC District
- 22,000+ students
- Costa Mesa, CA
The Orange Coast College Experience

- Formed active BILT
- Validated skills
- Implemented 17-hour CT certificate
- Created Convergence Certificate
- Created four new courses and updated two courses.
Convergence Technology Program at OCC

- The CTC Program offered Orange Coast College the opportunity to bring in a new program in less (much less) than half the time
  - The Convergence Technology program was already a proven success
  - The existing employment data research tools were easily adapted and applied to the local business community
Courses Developed With the Help of the Convergence Technology Center

- Additions to CompTIA’s A+ and Network+ Certification classes
- Cisco Exploration Series (semesters 1-4)
- EMC Storage Management
- Digital Home Technology
- Juniper OJRE and AJRE Routing
- Voice Over IP
- Ethical Hacking
- … and more courses to come
Summarizing the Experience

- The program currently has ten+ courses in the curriculum with additional courses in development.
- Student enrollment is very strong.
- Students gaining employment.
- Our business partners have expressed a strong interest in hiring our students upon completion of the program.
Lansing Community College

- Ed Suniga – Department Chair
- Karl Dietrich – Lead Faculty for CIT

3rd largest community college in Michigan with 20,000 students annually
Lansing networking degree

- One size fits all network degree didn’t give the students the skills they needed
- Consultation with local BILT members
Lansing networking degree

- New degree is much more rigorous
- Revised the network degree into foundation courses
- 4 areas of specialty
  - Security
  - Administration
  - Convergence Technology
  - Cisco CCNA certification
Convergence Technology Courses

- Voice over IP
  - Cisco based – CCNA Voice
- Home Technology Integration
  - Very successful program
- ITIL
  - Requested by local advisory council
Learn More!

- Working Connections, July 9-13, 2012
- Collin College, Frisco TX Campus
- Partial travel reimbursement for educators
- 9 Tracks on emerging technologies
  - Intro to Geospatial
  - Everything over IP
  - Mobile Device Programming
  - EMC (Cloud)
  - vSphere
  - Citrix
  - CyberSecurity
  - Business Analytics
  - Wireless
There is room for you to join us!

- Applications available on the web
- More colleges will be accepted next year
For more information:

- www.connectedtech.org
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