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LOUISIANA COMMUNITY & TECHNICAL COLLEGE SYSTEM

APPROVED

SPK 9/12/18
LCTCS BOARD OF SUPERVISORS

TO: Dr. Monty Sullivan
LCTCS President

THROUGH: Dr. René Cintrón *RC*
Chief Academic Affairs Officer

FROM: Dr. Adrienne Fontenot *AF*
Director of Adult Learning and Educational Programs

SUBJECT: Bossier Parish Community College's Center for Excellence in
Cyber Technology

DATE: August 20, 2018

FOR BOARD REVIEW AND ACTION:

Recommendation: Staff recommends that the Board approve the request for continued designation of Bossier Parish Community College's Center for Excellence in Cyber Technology.

Background: Act 555 of the 2010 Regular Session of the Louisiana Legislature authorized the Louisiana Community and Technical College System Board of Supervisors, in coordination with the Louisiana Board of Regents, to create Centers of Excellence that provide customized educational and training programs to meet areas of need as identified by business and industry. Bossier Parish Community College (BPCC) Cyber Technology program was designated as a National Center of Academic Excellence by the National Security Agency and the Department of Homeland Security. With this designation, the program continues to advance in information security education, curriculum development, and faculty training. BPCC has submitted a progress report and is requesting continued designation as a Center of Excellence.

Fiscal Impact: The center consists of several divisions and grant funds to support initiatives. The general budget for the division pays for salaries, and student tuition remains an important revenue source.

History of Prior Actions: BPCC first received this designation in April 13, 2012.

Benefits to the System: The center will help in meeting the cyber industry's critical workforce needs in the I-20 Cyber Corridor and throughout the state.

Monty Sullivan
Approved for Recommendation to the Board
Dr. Monty Sullivan

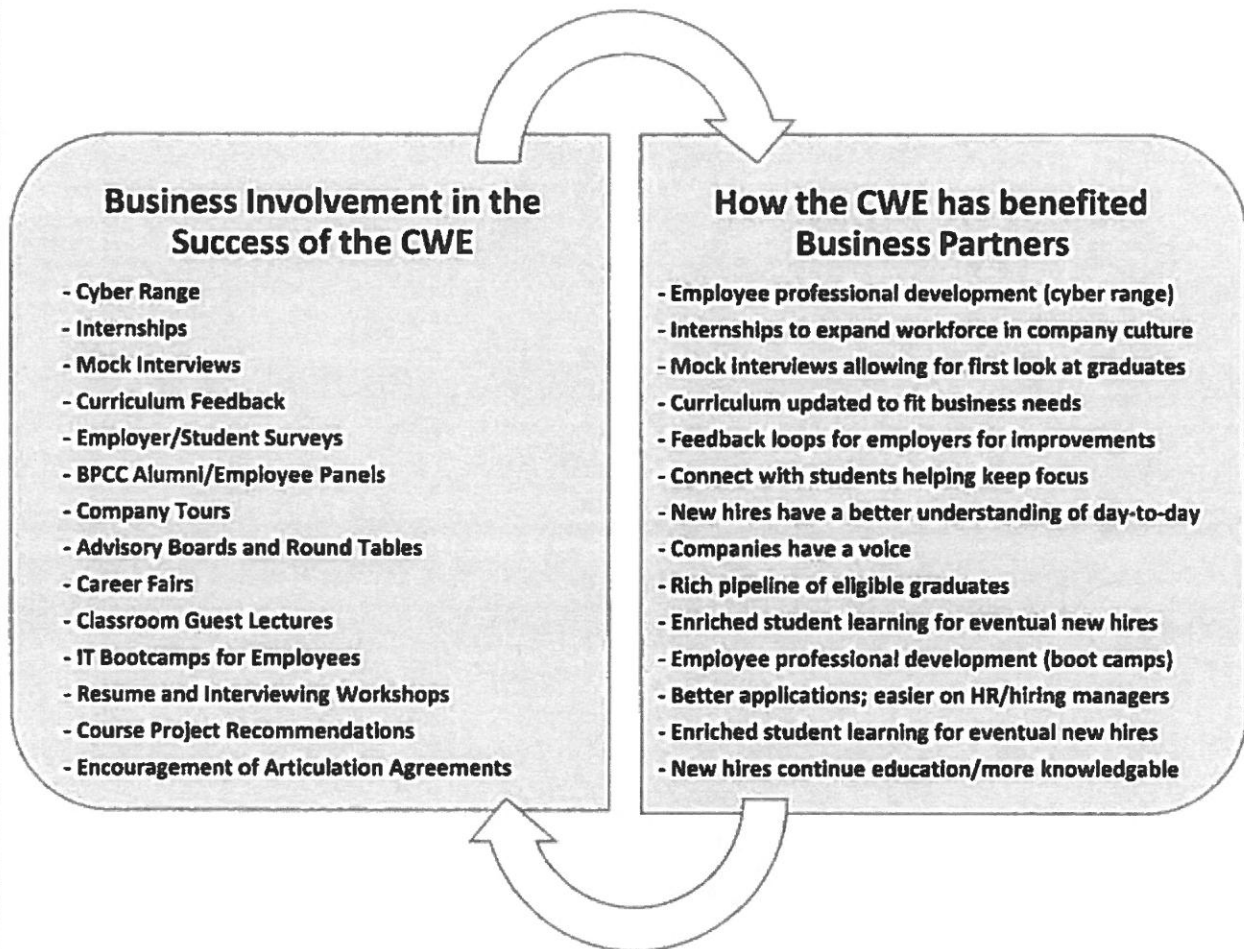
9-12-18
Date

Board of Regents
PROGRESS REPORT and REQUEST for
CONTINUED DESIGNATION as a CENTER of EXCELLENCE

Center Name: (CWE/CAE/CRE)	Center for Workforce Excellence in Cyber Technology	
Institution:	Bossier Parish Community College	Date: September 7, 2018
Megan Martin, Dean of Technology, Engineering, and Mathematics mmartin@bpcc.edu 318-678-6554		

Brief Description: What is the Center’s purpose, and how has the Center been a hallmark of the institution?

The Center of Workforce Excellence (CWE) in Cyber Technology is the collective sum of all activities related to employer engagement, curriculum refinement, student outreach, student scholarships, infrastructure improvements, grant procurement, program development, faculty capacity and professional development, and innovation. At the core of BPCC’s IT programs is the Center of Workforce Excellence, and our IT partners are intimately involved in the direction of our CWE and benefit greatly from their involvement. Below is a summary of our partnerships related to the Center of Workforce Excellence.



The Cyber Technology Program in the Division of Technology, Engineering, and Mathematics (TEM) division is the heart of the Center of Workforce Excellence in Cyber Technology at Bossier Parish Community College. BPCC is designated as a National Center of Academic Excellence in Information Assurance 2-year Education as named by the National Security Agency and the Department of Homeland Security. With this designation, the Cyber Technology program continues to advance in information security education, curriculum development, and faculty training. The program content is experiencing continuous improvement and evolution to keep pace with requirements from cyber business partners. Initiatives by federal and state government, industry sponsors, and other sources contribute to updated lab equipment as well as the completion of other program improvements. At present time, a successful state grant with industry partner General Dynamics IT (formerly CSRA) has resulted in 105 students hired in IT positions and 29 students who have held internships. In addition to this partnership, the

institution held the first Cyber Range event for our industry partners with our partnership with Cybint. This event has led to discussions and a continued partnership with Cybint in order to integrate their product and capabilities to train industry, educators, and students in Cyber security.

Measures of Excellence

1. How has the Center enhanced the Institution's mission? What value has the Center brought? What goals/objectives are being accomplished due to the existence of the Center?

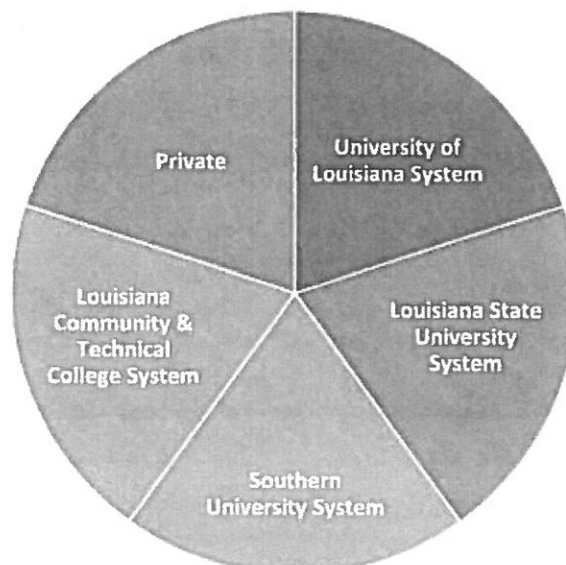
The mission of BPCC is to promote attainment of educational goals within the community and strengthen the regional economy. This mission is accomplished through the innovative delivery of quality courses and programs that provide sound academic education, broad vocational and career training, continuing education, and varied community services. This program aligns with the mission of the College by offering associate degree and certificate programs consisting of industry-driven course content that prepares graduates for work in a broad choice of occupations. BPCC works to foster and create opportunities for interdisciplinary activities, continues to develop and support both credit and continuing education academic programs, facilitates efforts to obtain extramural funding, and serves as a link between the academic and professional communities. The designation has extended the success of Cyber Technology in academics at BPCC to a stronger base of Cyber Technology for our industry and workforce partners with events such as the Cyber Range with industry partners with Cybint. The Center designation represents BPCC's dedication to the community and the workforce for the region and the state. With help from the GDIT grant and TEM staff, the Center also ensures student services and support, whether the student is a traditional academic student or an industry partner employee taking a boot camp for a certification. The Division of Innovative Learning and Computer Services work with the TEM Division to advance forward with innovative ideas and practices in the IT field for our students and community partners.

2. How has the institution demonstrated performance excellence in this area of education, training, and/or research? Include measureable outcomes of the enterprise. How will excellence be even more apparent with continuation of the Center?

With a continuation of designation, the College will continue to attract active advisory board members, collaborate with industry partners and cyber organizations, develop new MOUs for the internship program, and seek out additional 4-year universities for articulation agreements. In addition, here are some other ways that BPCC's CWE has demonstrated performance excellence.

Cyber Range

BPCC's CWE held the first state Cyber Range event for industry partners with a national partner, Cybint Solutions. BPCC's CWE will host another Cyber Range event for educational partners in October. This event will be one of true collaboration, bringing together faculty members from all systems in the state of Louisiana, including the University of Louisiana System, Louisiana State University System, Southern University System, Louisiana Community & Technical College System, and private institutions.



National Center of Academic Excellence in Information Assurance 2-year Education

This designation is named by the National Security Agency and the Department of Homeland Security. With this designation, the Cyber Technology program continues to advance in information security education, curriculum development, and faculty training.

AAS Systems Administration Degree

Just in the first year of designation as a Center of Workforce Excellence in Cyber Technology, BPCCC worked with General Dynamics (IT), formerly CSRA, to create and have approved a new associate's degree in Systems Administration.

CompTIA Post-Secondary Rising Star Award

BPCCC received a Post-Secondary Rising Star Award for being a CompTIA Academy.

Academic Academies

BPCCC is a Cisco Academy, a Microsoft Academy, and a CompTIA Academy. Having these designations helps to set BPCCC apart.

3. What new funding, donations and/or pledges has the Center received since the last report? What is the plan for the next five years of operation to maintain and enhance the performance of the Center? What infrastructure is in place to ensure future viability?

New Funding, Donations/Pledges:**Top Secret IT Pathway**

In June 2017, the Rapid Response grant 16-17 to develop a hybrid program for Background Investigator Training (BIT) was approved for a refocusing of the objectives for the last installment of the funding (\$240,000). The new focus, exploring options for incorporating clearance preparation into academics and examining the feasibility of creating a cyber range, was well received and resulted in an additional \$60,000 being awarded (total award for new focus \$300,000).

Expanding BPCCC OnDemand™

Another portion of the Rapid Response grant 16-17 for the BIT program was also refocused in June 2017. The remaining grant balance of over \$184,000 was approved to support the new objective, expanding offerings available through BPCCC OnDemand™. Production of courses requested by cyber workforce partners were given priority and resulted in the following courses being developed: CompTIA Cloud Essentials (available), CompTIA Security+ (in final production), CompTIA Cloud+ (in final production), COBOL Essentials (in final production), and Technical Writing (under contract). The grant close date was approved for extension until all grant funds are expended. BPCCC has agreed to support the personnel required to manage this project once grant funds have been fully expended.

BPCCC Cyber Range Competition and Workshop

On June 1, 2018, BPCCC partnered with Cybint Solutions for the inaugural BPCCC Cyber Range Competition and Workshop. This successful partnership resulted in Cybint providing in-kind services (estimated value \$10,000) and Simulab scholarships (estimated value \$10,000). The BPCCC Cyber Range Competition and Workshop was an opportunity for invited IT companies to match their cyber wits and skills. After complementing the range competition, participants received an in-depth briefing from Cybint CEO and global cyber intelligence expert Roy Zur on current cyber threats, the Dark Web, cyber intelligence, and other timely cyber topics. We surveyed the employer participants, and the feedback was overwhelmingly positive with 100% of all participants saying they would "strongly agree" or "agree" that a graduate with Cyber Range experience would positively impact their impression of a graduate when hiring.

Infrastructure

Bossier Parish Community College continues to strive to be forward thinking in regards to technology and its need in the ever-changing higher education environment. The College continues to advance its goals of being equipped for the needs of today and being prepared to support the increasing demands of the future. Over the course of the previous year, the college made a number of improvements to the infrastructure to support the Center for Workforce Excellence in Cyber Technology more adequately. This includes:

- Implementing Department of Homeland Security (DHS) Cybersecurity practices and scanning to increase the security of the College's network and assets. Currently in phase 3 of DHS/NSA compliance certification.

- Initiated a data center upgrade project that will better prepare the College for the future by
 - Increasing the available physical capacity of the College's existing data center by 150%.
 - Installing a centralized UPS system to support the increased volume and better protect against power issues in the data center.
 - Installing new dual (redundant) HVAC units to cool properly the data center at load.
- Instituted disk backups for all disaster recovery (DR) and setup a redundant offsite DR facility in partnership with Louisiana Delta Community College in Monroe, Louisiana, to prepare BPCCC better for data loss prevention in the event of a disaster.
- Completely overhauled the email filtering landscape at BPCCC to reduce the amount of SPAM/Malicious emails that enter the BPCCC ecosphere by 97%. This was achieved with a newly procured Cisco Email Security Appliance (ESA) purchased in partnership with TEM/Innovative Learning as part of the Rapid Response Cyber Range grant. The College is currently filtering 1.85 million individual malicious emails a week.
- Upgraded data center switching to 40GB interconnects. This generates a 400% increase in datacenter traffic transmission as well as a 200% increase in supported network device density in the data center. This upgraded hardware supports 100GB interconnects when the transition to that newer technology is needed.
- Converted student and employee network file shares from a single server system to a distributed file server model allowing data redundancy and faster access to user files.
- Upgraded the campus' wireless access controllers to support the ever-growing number of wireless access points and user provided devices. This increases max allowable wireless device density on campus by 75%.
- Completed transition of all network hardware to a homogenous Cisco environment.

These upgrades were funded through a number of sources and initiatives totaling \$500K in investment in computing infrastructure in the previous year. This puts BPCCC at the very tip of the spear in regards to computing infrastructure and capacity and is something the College will continue to leverage to further the mission of the Center for Workforce Excellence in Cyber Technology.

Virtual Desktop Campus-Wide

Beginning fall 2018 semester, Computer Services will implement Virtual Desktop Interfacing (VDI) starting first with The Learning Commons. This technology allows Virtual desktops to be delivered to an end user at any location. This will make classrooms on campus agnostic to the content that is being taught there. Over the course of the next five years, VDI will be rolled out campus-wide, and Computer Services will be in the beginning stages of offering VDI delivery remotely to users at a distance. This will allow the CWE to deliver instruction and the specialized software needed anywhere across campus.

Cybint Cyber Range and Simulab

After the success of the BPCCC/Cybint Cyber Range event, we are working on moving our partnership with Cybint forward for future Cybersecurity training. We hope to use the Cybint Simu-lab for internships and in the cyber curriculum. With the positive feedback about the event from industry partners, we hope to have more cyber range events for industry and our education partners in the area in October 2018.

4. Describe programs under development to be offered through the Center: purpose, status, anticipated implementation, expected productivity and rationale for expectations. How will each contribute to the Center's focus? Outline the plan for achieving/maintaining cutting-edge instruction in all areas. *[Addition of instructional (CRIN) programs under the Center umbrella must be approved by BoR.]*

AAS in Systems Administration

A new Associate of Applied Science in Systems Administration with two concentrations was developed with industry partner General Dynamics IT (formerly CSRA).

The Associate of Applied Science in Systems Administration with a concentration in DevOps program provides students with a broad, overarching knowledge of a variety of IT subject areas that brings together development, operations, and testing. DevOps is an interdisciplinary program that requires communication, collaboration, and a broad knowledge so that students understand the full-scope of software delivery.

The Associate of Applied Science in Systems Administration with a concentration in Enterprise Information Technology and Development program provides students with the skills needed to manage an organization's computer systems. The program prepares individuals to function as entry-level systems administrators and covers analyzing system logs, applying system updates, updating user accounts, troubleshooting problems, and ensuring uptime.

This AAS was approved by LCTCS and BoR for implementation beginning Fall 2017. These specialized degrees fit into the mission of the Center and support business and industry including General Dynamics, Xentient Technology, and ECS (Enterprise Computing Services).

Cyber Range Program

With the success of the Cyber Range event, we are moving forward with future events and an established partnership with Cybint. The addition to the Simulab component into our curriculum and the Cyber Range activities into the internship course and as a service to our industry partners will greatly enhance the Center.

Transition of all IT related TCAs to CTCs

Currently, TCAs are not eligible for financial aid. However, BPCC has begun the process for transitioning its TCAs to CTCs so that students can receive a short term credential, enter the workforce in a shorter time, receive industry based certifications, and now have their courses covered by financial aid. Existing TCA's that will be converted include

- Cisco Certified Network Associate
- Computer Repair
- Information Technology
- Software Applications
- Web Design

In addition, a new CTC in Help Desk is being developed at the request of one of our industry partner, General Dynamics Information Technology.

5. How has the Center provided and promoted service to the greater community? Describe activities conducted and/or other achievements.

College Day in Baton Rouge

In March 2018, Chris Rondeau, BPCC Cyber Program Director, and BPCC Cyber students traveled to Baton Rouge to meet at the Louisiana State Capital and demonstrate the importance of STEM education.

3rd Annual Cyber Competition at NSU

On April 14th, a group of Cyber students and faculty from BPCC traveled to NSU for the annual cyber competition. This year, each team consisted of a combination of BPCC and NSU students. The teams participated in challenges and projects, including Cisco projects, programming projects, and activities involving virtual machines for a hack-a-thon.

BPCC Cyber Range Event with Cybint Labs

On May 31, 2018, a media advisory was released announcing *Bossier Parish Community College and Cyber Education Leader Cybint to Host Inaugural Cyber Range Competition and Workshop for Leading Companies*. (APPENDIX D)

On June 5, 2018, *Yahoo! Finance* shared *Bossier Parish Community College and Cyber Education Leader Cybint to Host Inaugural Cyber Range Competition and Workshop for Leading Companies* on their website. (APPENDIX D)

STEM on Screen event at the Robinson Film Center

AEP Credits Count, Step Forward, and BPCC joined forces to introduce STEM and stimulate conversations with middle school students about the STEM field and possible careers.

The idea of STEM-On-Screen was to present a popular film that aligns with a STEM field in order to stimulate conversation at the conclusion of the film. The films presented this spring were *War Games* and *The Greatest Showman*. Experts in the STEM field were invited to each showing as guest speakers to talk about STEM, answer

questions, and help students discover ways that innovation is building a stronger STEM industry as portrayed in the film viewed. Local employers and BPCC's Technology, Engineering, and Math Department set up interactive displays to garner interest.

6. How do the Center's education, training and/or research efforts further the economic development and workforce needs of the state? How will its programs address current and projected workforce needs and/or contribute to economic development through patents, licenses, start-ups, or other activities?

Proposed Help Desk Career and Technical Certificate

Through the General Dynamics/LED partnership, the BPCC faculty and staff are working with the Customer Engagement Center at General Dynamics to establish a CTC in Help Desk to help train call center employees. This certificate would include courses mapped to Industry Based Certifications and a class focused on the soft skills needed in the IT field. General Dynamics plans to have a steady cohort of employees entering into this program. In addition, ECS, Willis Knighton, Christus Schumpert, Bossier Parish Schools, Caddo Parish Schools, and Bossier Parish Community College's Computer Services department could benefit from this certificate program.

Community College Cyber Summit 2018 (3CS)

BPCC continues to be recognized as a role model of how to integrate workforce needs into academics, and as a result, Megan Martin, Dean of Technology, Engineering, and Mathematics; Chris Rondeau, Program Director of Cyber Technology; and Wesley Bange, Chief Information and Technology Officer will present "Advisory Boards and Partnerships and How They Help You Grow" at the Community College Cyber Summit 2018.

The Cyber program has submitted an application for the Innovations in Cybersecurity Education Award (which will be announced at the 2018 Community College Cyber Summit) along with a submission for a feature in the National CyberWatch Center publication.

3CS Conference 2019

A letter of commitment has been submitted to host the 2019 conference at Bossier Parish Community College. During the 2018 3CS conference, 3CS announced that BPCC will be the host site for the 2019 conference.

New or Upcoming BPCC OnDemand Courses

- CompTIA Cloud Essentials (new)
- CompTIA Cloud+
- Technical Writing
- COBOL Fundamentals
- ITIL Foundations
- Security Clearance: Best Practices

7. Provide specific evidence of collaboration with other entities: postsecondary institutions and/or industry/private sector – and how it has contributed to furthering the impact of the Center.

LaSTEM

On November 2, 2017, Paul Spivey and Sandra Partain presented the ways in which BPCC is meeting the objectives for ACT 392 to Senator Hewitt at the Cyber Innovation Center. Later, on November 28, 2017, Ms. Partain presented the BPCC/CSRA partnership best practices to the LaSTEM committee at the Louisiana Board of Regents. On July 5, 2018, BPCC hosted the monthly meeting of the NWLA STEM committee in the Center for Advanced Manufacturing and Engineering Technologies.

LONI Opportunity Committee

BPCC team members attended a meeting to review Network Infrastructure through the state at the LONI North LA Town Hall & Cybersecurity/Cyberinfrastructure Discussion in April 2018. From this, Paul Spivey and Wesley Bange remain a part of the LONI Opportunity Committee for North Louisiana.

TECH by 20

BPCC and the TEM Division are members of TECH by 20 and are well represented at all TECH by 20 events. This organization exists to support the development of a vibrant technology ecosystem along the I-20 corridor of North Louisiana. TECH by 20 holds workshops, lunch and learns, and technology events on cutting-edge topics like Cryptocurrency and Block Chain.

Cyber Commission for Workforce Education and Outreach Committee

Paul Spivey is the BPCC representative on the state Cyber Commission for Workforce Education and Outreach Committee. This committee is a subcommittee of the Governor's new Cyber Commission for the advancement of Cybersecurity and Cyber Education in the state of Louisiana.

Partnership with Cybint

After the success of the BPCC/Cybint Cyber Range event, BPCC is working on moving our partnership with Cybint forward for future Cybersecurity training. We hope to use the Cybint Simu-lab for internships and in the cyber curriculum. With the positive feedback about the event from industry partners, we hope to have more cyber range events for industry and our education partners in the area. On June 4, 2018, a press release announced *Bossier Parish Community College and Cyber Education Leader Cybint to Host Inaugural Cyber Range Competition and Workshop for Leading Companies.* (APPENDIX D)

National Institute for Cyber Education (NICE) Apprenticeships Working Group

A team of BPCC faculty and staff attended the NICE conference in November 2017. From this conference, Sandra Partain became a BPCC representative on the Apprenticeships Working Group for NICE.

CyberWatch

Bossier Parish Community College is now a member the National CyberWatch Center (NCC). NCC is a consortium of higher education institutions, businesses, and government agencies focused on collaborative efforts to advance Information Security education and strengthen the national cybersecurity workforce.

General Dynamics IT/LED Grant

Year 5 of the GDIT/BPCC partnership began July 2018. Since 2014, the total number of students employed by GDIT in IT positions is 105, and 29 BPCC students have held IT internships with GDIT.

Academic Productivity.

8. Number of Enrollments (majors, in most recent Term) and Completers (sum of AY graduates) for each relevant program, up to five years. *(Duplicate the table, as needed.)*

Program: AAS Cyber Technology (Network Security and Programmer Analyst Concentrations)					
Term (Yr)	2016-17	2017-18	20__	20__	20__
# of MAJORS	145	195			
COMPLETERS, by credential (as applicable)					
AY	2016-17	2017-18			
AAS Cyber Tech	32	31			

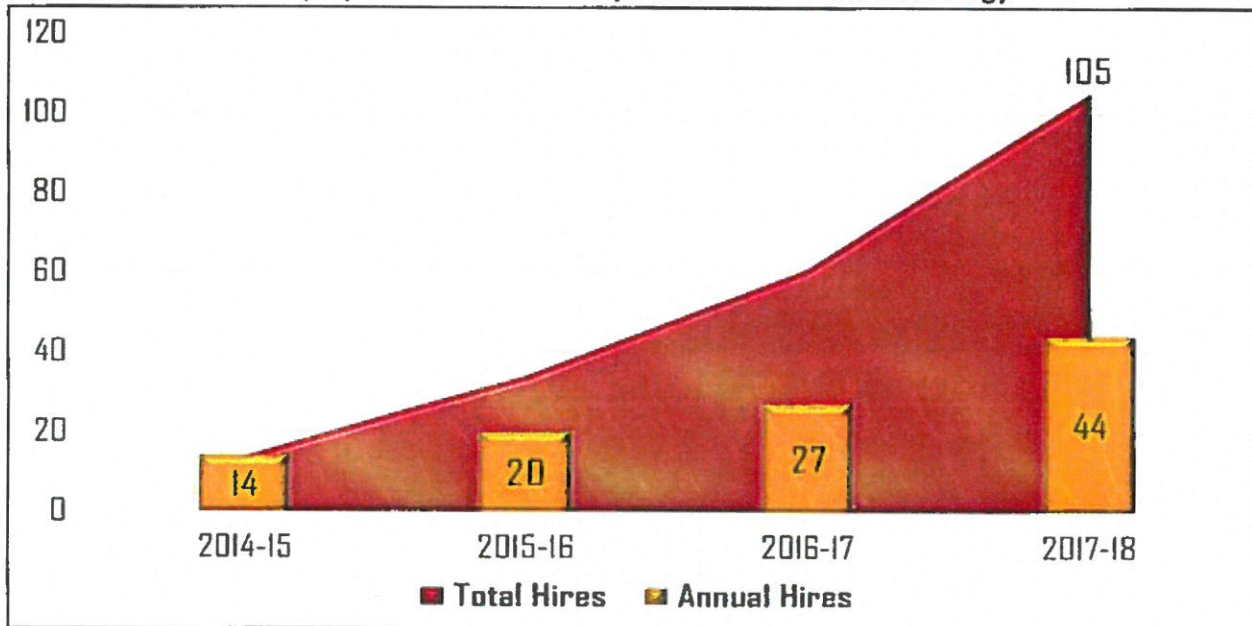
Workforce Placements or Continued Education.

9. Especially for Centers for Workforce Excellence: Placement of graduates? Include pay range, if known; and comparison to other programs.

Since 2015, BPCC has placed students in IT positions at 41 reported companies: AFS Logistics, AI Studios, AIG, Asteri Networks, Bossier Parish Schools, Bossier Parish Community College, Bowman Systems, Caesars Entertainment Corp., CenturyLink, Christus Highland Clinic, CTRL-ALT-DEL, CyberReef Solutions, ECS (Enterprise Computing Services), Electsolve, Fix my PC, General Dynamics Information Technology - GDIT (formally CSRA), Hancock Natural Resource Group, Hardware Resources, Highland Clinic, iHeart Deliveries, Kobus Technologies, Louisiana State University Shreveport, Minden Medical Center, Omega Diagnostics, PC-net Consulting, PioneerRx Pharmacy Software, Pooles Cable Services, ProSphere, SAIC, Second Circuit Court of Appeal, Shreve Memorial Hospital, Smartech, Sports South LLC, TEKsystems, Twin Engine Labs, US Army Corps of Engineers, VDO Communications, Venyu, Vigilant Services Corporation, Willis Knighton, and Xentient Technology (formally xentientLABS).

General Dynamics Information Technology (formally CSRA) has been a model partner over the past four years. Below is a chart of the annual hires from BPCC at GDIT.

Employment with General Dynamics Information Technology



Post-Graduate Survey results provide this information about graduate pay and placement. We usually send out this survey 2-3 times in order to receive information; however, feedback is not received regularly. From the 2016-17 academic year surveys, we received 14 responses for the entire academic year. The average pay range for students with the Cyber Technology degree ranged from \$40,000-60,000.

Employer Satisfaction.

10. Especially for Centers for Workforce Excellence: Employer satisfaction data? What evidence do you have that graduates are meeting employer needs and expectations.

Qualitative Data

During our Advisory Board meeting on April 27th, 2018, we asked all employers to identify the areas in which our students were strong and where were they weak. Their feedback was helpful so that we could focus on courses that needed to be updated and elements that needed to be embedded into the programs more regularly.

Quantitative Data

The TEM division sends out a Post-Graduate survey to all graduates. This survey requests information on the employment status of the graduate. If and when this information is collected, an Employer Satisfaction Survey is then sent to the employer listed. Staff members are currently working to find the most effective way to approach this data collection since response numbers are low. Another factor causing collection timeline delays is confirming that a graduate has been employed at a site long enough for the employer to assess the individual. For grants and other projects, we have used graduate information for 2-4 years prior to conduct surveys with some success; therefore, we will implement that practice again.

Post-Graduate Survey Results – The following is how the graduating students rated the Program Learning Outcomes (PLO) as they related to CIT, CIS, and SADM degrees:

- 96% rated the PLOs as Excellent, Very Good, or Good.
- 81% rated the PLOs as Excellent or Very Good.
- 47% rated the PLOs as Excellent.
- 4% rated the PLOs as Fair.
- 0% rated the PLOs as Poor.

Student Comments on Program Strengths – certifications, hands-on education, faculty instruction and knowledge, troubleshooting, creating firm foundation, simulated scenarios, invested faculty, faculty helpfulness.

Student Comments on Areas of Improvement – create a mock-up data closet, even more hands-on, more special speakers, even more projects, focus on the NIST guidance and best practices.

Advisory Board.

11. Describe the composition and activities of the advisory board.

The Cyber Advisory Board consists of a diverse group of leaders from the IT industry, economic development, IT recruiters, 4-year education partners, and BPCC cyber faculty and staff. Companies serving on our advisory board over the last three years have been Allegiance, Bossier Parish Schools, Bowman Systems, Centurylink, CyberReef Solutions, ECS, Electsolve, General Dynamics Information Technology (formally CSRA), Microsoft, Praeses, Technologix, and Xentient Technology (formally xentientLABS). In addition to these companies, we have had APS Payroll, Twin Engine Labs, and Willis Knighton participate in Round Table discussions.

The Advisory Board for the Cyber Technology program held its last meeting on April 27th, 2018. The board voted on action items for the Cyber Technology, Computer Information Systems, and Systems Administration programs prior to the meeting in order to have a more focused round table discussion with the members. For the pre-meeting voting, the members approved program learning outcomes and curriculum length for all the programs. The addition of a Cloud+ course, an Operational Assessment of IT course, and an AWS Certified Developer course were approved to go to the College's curriculum committee. Representatives from 10 industry and community partners as well as 4 education partners attended the meeting. The roundtable format was very successful, and faculty and staff agreed that this format for future meetings would be ideal to maximize the time that we have for collaboration with the members. The key points discussed during the roundtable were value of teamwork and team environment, soft skills, problem-solving and critical thinking, communication, and the importance of deadlines and responsibilities assigned on the job.

In particular here is a recap of some of the comments from employer partners during the last advisory board meeting:

Bossier Parish Community College (Computer Services Department) – Recommended pairing cross functional intern groups together to work on projects that allow them to collaborate and make decisions in the moment.

ECS – Encouraged more help with resumes and written skills, interviewing; also recommends integrating topics on the cloud
Electsolve – Students need to be problem solvers and understand how to dig to really flush out program requirements. They need to be able to communicate and know how to adjust and be flexible.

General Dynamics Information Technology (formally CSRA) – Allow students to start with vague concepts. Allow them to grow in the process where contracts start vague and they are developed. Don't let teams choose topic. Thought must be put into the design. Students need to work through a process. Have projects that interact with local businesses. Enforce deadlines. We are available to bring over guest speakers. DoD requires certs and they are needed for contracts. BPCC to LSUS need to relook at articulation.

Microsoft – Recommend to write clear and concise. Students need to know how to talk through to uncover details. Do table top exercise and put conflict into the project. Students need to realize that it won't come easy automatically. In

regards to resumes, tell me why you should get a job, not just about your grades. Curriculum should include more on cloud and VM.

NLEP – Techx20 is a group that pulls together industry and academia across the I-20 corridor.

Northwestern State University – We partner with BPC to have an annual Cyber Competition. Students need to know how to communicate. NSU now requires certs as final to pass classes, and we feel like this adds weight to the program.

Xentient Technology (formally xentientLABS) – Problem solving skills are important. To help learn soft skills, have them involved in full life cycle of project. Enforce deadlines. Certifications are proof of knowledge and a foundation level.

Programmers need to know hardware for security and design aspects. Recommends including more in curriculum related to cloud, drones, AWS, and blockchain.

Faculty & Administration

12. Attach list of core leadership and faculty/staff, highlighting any changes since the last report/proposal.

Budget

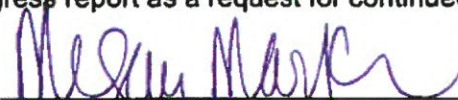
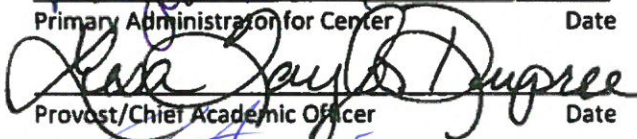
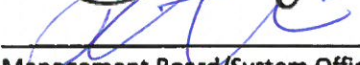
13. Attach a report of the Center's actual budget over the last year and a projected four-year budget, including sources and amounts of funding/revenue and expenditures.

Letters of Support

14. Attach at least three letters of support from business/community members for continued designation as a COE.

Please accept this progress report as a request for continued designation as a Center of Excellence.

CERTIFICATIONS:

	<u>9-7-18</u>
Primary Administrator for Center	Date
	<u>9/7/18</u>
Provost/Chief Academic Officer	Date
	<u>9/7/18</u>
Management Board/System Office	Date

Faculty & Administration

Core Leadership

Sandra Partain – Associate Vice Chancellor of Innovative Learning (new title)

Wesley Bange – Chief Information and Technology Officer

Megan Martin – Dean, Division of Technology, Engineering, and Mathematics (new title)

Paul Spivey – Assistant Dean, Division of Technology, Engineering, and Mathematics (new title)

Rachel Basco – Project Director, LED/General Dynamics Grant (grant funded – new position)

Program Directors

Pam Milstead – Professor and Program Director for Computer Information Systems

Chris Rondeau – Professor and Program Director for Cyber Technology – Network Security

Al Shaw – Instructor and Program Director for Systems Administration

Suzanne Shipp – Instructor and Program Director for Cyber Technology – Programmer Analyst

New Instructors

Steven Turner – New Instructor, Cyber Technology (grant funded – new instructor)

Budget and Funding

The Center of Workforce Excellence consists of several divisions and grant funds to support initiatives.

Current grants:

Rapid Response – OnDemand \$68,655.55

Rapid Response – Cyber Range \$191,171.36

GDIT/LED BPCC CAE Grant Currently in Year Four of Ten Year grant (\$250,000/year)

Division Funds:

The Cyber Technology Program is currently supported by the general budget for the Division to include 4 full-time faculty members and 1 adjunct instructors.

Student tuition continues to be an important revenue source. Below is the estimated cost of the AAS in Cyber Technology Program for a student.

1. Tuition and Fees:

Resident: \$2,069.52 for 12 credit hours

Non-Resident: \$4,408.02 for 12 credit hours

For a total of 60 hours in both concentrations of the AAS Cyber Technology program (assuming students do not need to take developmental Math or English courses): Resident, \$10,347.60 and Non-resident, \$22,040.10

2. Books:

Estimating that one textbook is \$150 for each of the 20 courses required in the curriculum, the book cost is approximately \$3000.

3. Course/Lab Fees:

The approximate cost for all CIT courses and the required MATH course is \$966.25 for the Network Security concentration and \$521.25 for the Programmer Analyst concentration.

4. Estimated Summed Total:

Resident: \$14,314 (Network Security concentration); \$13,869 (Programmer Analyst concentration)

Non-resident: \$26,006 (Network Security concentration); \$25,561 (Programmer Analyst concentration)

The average total cost of the attendance for students in the program is \$10,545. In the most recent fiscal year, it cost the college \$713,811.69 to offer the program while the program generated \$1,324,286.43 in total revenue. In addition, the Cyber Technology program has \$40,000 in dedicated foundation scholarships and \$2,036,058.83 in Grant Funding.

8 July 2018



Dr. Rick Bateman, Jr.
Chancellor, Bossier Parish Community College
6220 East Texas Street
Bossier City, LA 71111

Dr. Bateman:

The purpose of this letter is to express our continued support for BPCC's designation as a Center of Workforce Excellence in Cyber Technology.

Our company has had the privilege to partner with your institution on many efforts and initiatives over the last four years. Your technology curriculum and outreach continue to bring together industry partners, IT companies, and other institutions, by creating a fully comprehensive plan that builds upon the development of the technology ecosystem in this area.

Over the years, we have become significant collaborative partners, and this partnership has led to the development of a robust internship program that our company provides to graduating BPCC students. This program provides a framework for critical student learning and has given BPCC technology students the opportunity to gain invaluable hands-on experience by designing, developing, and deploying custom software.

In addition to the internship program, we are proud to serve on BPCC's CIS/CIT Advisory Board, providing guidance on overall program and course design. We also participate in student workshops, career fairs, round-table discussions, mock interviews, and classroom presentations, just to name a few. These academic ties with BPCC have afforded my company and other local IT businesses with a steady stream of talented graduates from your various technology programs.

I am proud to submit this letter of support, and I look forward to continuing and even expanding the relationship between my company and your institution.

Sincerely,

A handwritten signature in blue ink, appearing to read "Cesar A. Marrero", is written over a faint background of interlocking gears.

Cesar A. Marrero
President & CEO
Xentient Technology

July 12, 2018

Dr. Rick Bateman, Jr., Chancellor
Bossier Parish Community College
6220 East Texas Street
Bossier City, LA 71111

Dear Dr. Bateman:

Over the years, ECS (Enterprise Computing Services) and Bossier Parish Community College have developed a strong working partnership that continues to help meet the increased need for IT professionals in our region and across the state of Louisiana. ECS is committed to the success of BPCC's Technology, Engineering, and Mathematics division and its Cyber Technology program. We are proud of BPCC and the work it has accomplished to become the state's first Center of Workforce Excellence in Cyber Technology (CWE) and we offer our continued support of the center.

Bossier Parish Community College is a leader in the state of Louisiana in cyber education. This summer, ECS participated in the Cyber Range Competition and Workshop hosted by Bossier Parish Community College and Cybint Solutions. This event was made available to a number of IT companies in the area and provided hands-on exercises to help our employees stay current with the latest cybersecurity threats. This opportunity was a valuable experience for our team and is a great example of one of the ways that BPCC's CWE continues to be innovative in meeting the workforce demand in our region.

Over the years, ECS has hired a number of BPCC graduates and has also partnered with BPCC by participating in advisory board meetings, IT round tables hosted by BPCC, special student information sessions, and career fairs. Additionally, ECS has provided insight on industry trends, given guidance on curricular changes, and led students on tours of our facilities.

As a part of our continued support of BPCC and its designation as the Center of Workforce Excellence in Cyber Technology, ECS will actively serve on the cyber advisory board, thus helping provide recommendations and feedback of course content, equipment purchases, and future initiatives to pursue. We are excited to offer our full support and look forward to continuing our partnership with Bossier Parish Community College.

Sincerely,



Holly Lawrence
Director of Operations
Enterprise Computing Services

August 15th, 2018

Dr. Rick Bateman, Jr., Chancellor
Bossier Parish Community College
6220 East Texas Street
Bossier City, LA 71111

Dear Dr. Bateman:

It is with great pleasure that I write this letter of support for Bossier Parish Community College (BPCC) and its Center of Workforce Excellence in Cyber Technology (CWE). Through the years, BPCC has been an ideal academic partner and a leader in cyber education in the state of Louisiana.

In 2014, Bossier Parish Community College, Louisiana Economic Development, and General Dynamics Information Technology (formally CSC) established a ten-year formal cooperative endeavor agreement (CEA). This CEA aimed to increase the number of IT graduates, expand recruitment efforts, expand industry-based certification offerings, enhance course curricula, create articulations with four-year institutions, build faculty capacity, and ultimately increase the number of students who intern and enter employment in the IT sector. Over the 10 year period, LED will provide \$2,500,000 funds to advance BPCC's IT programs which will indirectly impact the newly designated Center of Workforce Excellence in Cyber Technology.

BPCC and its Center of Workforce Excellence continue to be a model for success. BPCC has reported that since the inception of the CEA more than 100 BPCC students and alumni have been hired by General Dynamics Information Technology! This is a tribute to the collaborative work that has been accomplished between BPCC, GDIT, and LED.

LED is committed to the success of Bossier Parish Community College and supports the continued designation of BPCC's Center of Workforce Excellence. If you have any questions about our CEA or partnership, please do not hesitate to contact me.

Sincerely,



Paul Helton
Executive Director of Workforce Development Programs
Louisiana Economic Development