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LOUISIANA COMMUNITY & TECHNICAL COLLEGE SYSTEM

TO: Dr. Monty Sullivan
LCTCS President

FROM: Dr. Paul Carlsen 
Chief Content Officer

SUBJECT: Establishment of a Center of Workforce Excellence in Cyber Technology at Bossier Parish Community College

DATE: 03/23/2017

FOR BOARD ACTION:

Recommendation: Staff recommends that the Board approve the establishment of a Center of Workforce Excellence in Cyber Technology at Bossier Parish Community College.

Background: Act 555 of the 2010 Regular Session of the Louisiana Legislature authorizes the Board, in coordination with the 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. Once established, the Board may set a unique tuition and fee structure for a Center of Excellence that exceeds the standard tuition and fee structure.

In 2013, the National Security Agency and Department of Homeland Security named BPCC as a National Center of Academic Excellence in Information Assurance 2-Year Education. BPCC was one of the first schools in the nation awarded this honor. BPCC is also one of a select group of community colleges nationwide to achieve all six of the Committee on National Security Systems (CNSS) standards certifications.

Leveraging their existing, nation-leading Cyber Technology program, BPCC is proposing the establishment of a new Center of Workforce Excellence in Cyber Technology as provided in Act 555. The Center aligns with the mission of BPCC by offering an AAS in Cyber Technology with concentrations in Network Security and Programmer Analyst that prepare graduates for work in a broad choice of occupations. In support of this proposal are the North Louisiana Economic Partnership, ElectSolve, Christus Health, CSRA, CyberReef Solutions, xentientLABS, and Enterprise Computing Services.

Pursuant to LCTCS Policy #2.014, BPCC's proposal to establish this Center was approved by an Application Review Committee (ARC). The ARC recommends approval of the establishment of the Center.

History of Prior Actions: The LCTCS has four fully approved Centers of Workforce Excellence: Baton Rouge Community College's Center for Workforce Excellence in Transportation Technology, Fletcher Technical Community College's Deepwater Center for Workforce Excellence, Delgado Community College's Center for Workforce Excellence, and SOWELA Technical Community College's Industrial & Process

Technology Center for Workforce Excellence. The Delgado Advanced Manufacturing Center for Workforce Excellence has been approved by the Board, and is awaiting approval from the Board of Regents.

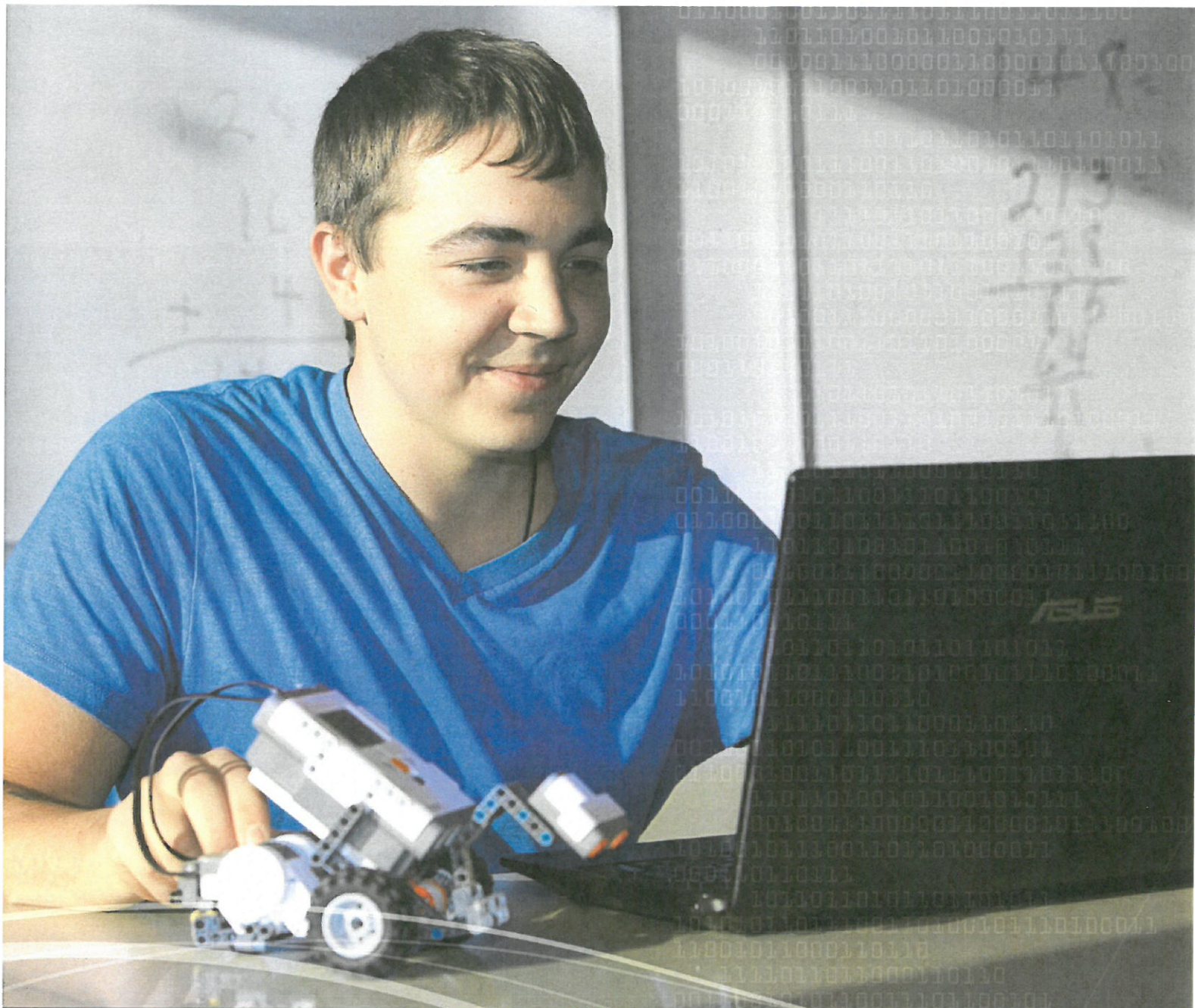
Fiscal Impact: No costs are anticipated since the faculty, staff, infrastructure, and curriculum for the Center of Workforce Excellence in Cyber Technology are already in place.

Benefits to the System: If approved, the establishment of a Center of Workforce Excellence in Cyber Technology at BPC will represent the first Center for Workforce Excellence in North Louisiana.



Approved for Recommendation to the Board
Dr. Monty Sullivan

Date



bossier parish
community college

Bossier Parish Community College
Center of Workforce Excellence
in Cyber Technology

Table of Contents

Description	3
Introduction to Bossier Parish Community College	3
Center Description and Potential Strengths	4
Center is Aligned with the Mission of the Institution	4
Potential Strength of the Center: Academic Accreditation.....	5
Potential Strength of the Center: Established National Security Agency/Department of Homeland Security Academic Center of Excellence	6
Potential Strength of the Center: Community and Industry Support	6
Potential Strengths of the Center: Geographic Location	6
Highlights of Potential Strengths of the Center	7
List of Program(s) and Program Data	7
Faculty and Administration	9
List of Core and Affiliated Faculty Members.....	9
Administrative Structure	9
Effect on the Present Structure of the Campus	10
Budget	10
Institutional Infrastructure Improvements	10
Program Health Index Report	13
Cyber Technology Program	13
Measures for the Center of Excellence	14
Enhancing the Institution	14
Our Louisiana 2020.....	14
Strategies for Success Plan (2014-2019)	14
Performance Outcomes	15
Program Enrollment	15
Number of Graduates.....	15
Certifications and other Credentials	15
Grants, Pledges, and Future Viability	16
Federal Grants	16
State Grants.....	17
Private Grants.....	18

Institutional Grant	18
Scholarships.....	18
Proposed Program.....	19
BPCCC OnDemand™	19
Proposed Projects	19
Cyber Boot Camps - BPCCC OnDemand™	19
Background Investigator Training - BPCCC OnDemand™	19
Willis Knighton Healthcare System - BPCCC OnDemand™	20
Center of Academic Excellence in Geospatial Sciences.....	20
Service to the Greater Community	21
Cyber Student and Faculty Represent BPCCC at the State Capital.....	21
BPCCC’S Technology, Engineering, and Mathematics’ Career Fair Designed for Attendees to Learn Employers’ Needs.....	21
Economic Impact	22
Collaboration with Other Entities	23
Information Assurance Reciprocity and Partnership	23
Louisiana Cyber Security Education Consortium (CSEC)	23
Cyber Innovation Center	24
Louisiana Economic Development (LED).....	24
Articulation Agreements	25
Advisory Board Members.....	25
Conclusion	26
Appendix A: ATMAE Accreditation Letter	27
Appendix B: Letters of Support	28
Appendix C: Program Outcome Table	36
Appendix D: BPCCC Organizational Chart	40
Appendix E: Program Health Index Report	41
Appendix F: Grant Cyber Funding Through 2016.....	43
Appendix G: Information Assurance Reciprocity and Partnership.....	44

Description

Provide a description of the proposed Center and how its area of focus has been a hallmark of the institution, for which the institution is or has the potential to be uniquely strong.

Introduction to Bossier Parish Community College

Founded in 1967, Bossier Parish Community College (BPCC), a 2-year community college located in northwest Louisiana, is nationally recognized for innovation. BPCC serves a dynamic marketplace, and our focus remains consumer-driven. Faculty and staff specifically design programs at BPCC to align with regional, high-demand employment sectors such as nursing and allied health, oil and gas technology, construction management, and engineering.

BPCC students can earn degrees from one or more of our 25 associate degree programs and numerous certificates that prepare them directly for the workforce. For students who wish to continue their education, BPCC's articulation agreements with universities across Louisiana allow for a seamless transfer of coursework.

At BPCC, students enjoy access to the latest in instructional technology. We offer more than 100 courses across all disciplines in an online format. Nursing and Allied Health students learn in a state-of-the-art Simulation Lab where high-fidelity simulators provide a learning environment for hands-on, patient care skills including those needed for surgery, intensive care, labor and delivery, neonatal care, and pediatrics.

In addition to BPCC's online course offerings, the College has implemented two other online programs. **Discover BPCC** and **BPCC Open Campus™** are unique, one-of-a-kind innovative programs designed to introduce individuals to the college experience and to offer an opportunity to sharpen academic skills without enrolling as a student.

- **Discover BPCC**
Discover BPCC allows anyone, anywhere access to the college classroom by viewing a sampling of real BPCC professors in action to experience a BPCC learning environment. Discover BPCC is a FREE series of mini-lectures, varying in length from 2-14 minutes, on courses such as English, math, art, biology, business administration, and reading. The series offers community members an opportunity to survey the types of courses offered and an opportunity to take an online career assessment.
- **Open Campus™**
Open Campus™, BPCC's open-source initiative, provides FREE, no-strings-attached, online, non-credit developmental courses available to anyone, anywhere. Open Campus™ courses prepare individuals for college-level placement testing, to enhance students' study and practice sessions, or to help employees brush up on basic professional skills. Course availabilities include Basic Math, Fundamentals of Grammar, Intermediate Algebra, Introductory Algebra, Reading Comprehension, Introductory Science, Introduction to Medical Terminology, and Introduction to IT and Computer Networking.

Bossier Parish Community College has been named a Bellwether Award finalist for its Open Campus™ initiative, Starting Below Ground: Channeling Paths to Completion in Developmental Education. This is the second consecutive year the College has received this honor.

BPCC is also one of only ten colleges recognized for instructional innovation by the Community College Futures Assembly which sponsors the Bellwether Awards; pioneering projects are selected from three categories: instructional programs, planning and governance, and workforce development. Three thousand (3000) colleges were nominated and the top ten in each category were chosen to present at the Futures Assembly.

The Bellwether Award has been compared to football's Heisman Award because it is competitively judged and is an award given by your peers in community colleges, with no cash award. It has also been called "the award of awards" because many institutions with programs that have won other awards apply for the Bellwether Award. Previous recipients of the Bellwether Award have said that it has been a springboard for other types of recognition and/or funding.

A \$22 million manufacturing training facility, part of Benteler Steel of Germany's \$900 million local investment, is the newest addition to BPCC's campus. This flexible, world-class workspace houses BPCC's Oil and Gas Production Technology, Engineering, Construction, and Manufacturing programs. The new space allows workers to train at BPCC for jobs in manufacturing, energy, and construction sectors.

BPCC is most proud of its long-held partnership with Barksdale Air Force Base. Because of the College's dedicated support and service to our military men and women, the coveted **Military Friendly Schools®** list has acknowledged BPCC for six consecutive years. The list honors the top 15 percent of colleges, universities, and vocational schools for the institute's work with military members and their families.

Center Description and Potential Strengths

Center is Aligned with the Mission of the Institution

The mission of Bossier Parish Community College 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. The College provides a wholesome, ethical, and intellectually stimulating environment in which students develop their academic and vocational skills to compete in a technological society.

To achieve its mission of instruction and service, Bossier Parish Community College is committed to:

- Offering associate degree programs, one-and two-year occupational certificate programs, and specialized career training.
- Delivering education and training/retraining through technical programs, workforce development, community education, and non-credit courses to serve citizen, business, and industry needs.
- Providing opportunity to earn academic college credits for articulation to other institutions of higher learning.

- Providing developmental studies and remedial programs that enable students to acquire basic skills.
- Utilizing a comprehensive program of student services.

The Cyber Technology Program aligns with the mission of the College by offering associate degree programs consisting of industry-driven course content that prepares graduates for work in a broad choice of occupations. 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.

Potential Strength of the Center: Academic Accreditation

The accrediting (SACS-COC) and governing (Board of Regents) bodies of Bossier Parish Community College have endorsed a set of core courses for students receiving an associate degree at the College. The core curriculum is included in the Associate Degree curriculum that students follow. The Cyber Technology program aligns with the requirements as shown in the following table.

Associate of Applied Science (AAS) in Cyber Technology			
SACS Requirement	Minimum required	Network Security	Programmer Analyst
General Education	15 total credit hours	15 total credit hours	15 total credit hours
English Composition	3 credit hours	ENGL 101	ENGL 101
Mathematics	3 credit hours	Math 101 or Math 102*	Math 101 or Math 102*
Natural Science	3 credit hours	Physical Science Elective	Physical Science Elective
Humanities	3 credit hours	Humanities Elective	Humanities Elective
Fine Arts	0 credit hours		
Behavioral/Social Sciences	3 credit hours	Social Science Elective	Social Science Elective

*For transfer to a four-year institution, students are strongly advised to take MATH 102 instead of MATH 101. Students must seek the assistance of their advisor to determine the appropriate mathematics course.

The accrediting body for the Cyber Technology Program is the Association of Technology, Management, and Applied Engineering (ATMAE). In the fall semester of 2014, the Division formally requested accreditation for the program, and the necessary documentation was submitted to ATMAE in February 2015. The Division of Technology, Engineering, and Mathematics requested accreditation for seven programs housed in the Division, including Cyber Technology. The ATMAE site visit team reviewed the programs in detail during their visit the week of March 9, 2015. The site visit team recommended "Accreditation with a 2-Year Follow-Up Report" for all seven programs reviewed including Cyber Technology. The ATMAE Board of Accreditation met in November 2015 and awarded accreditation to all

seven programs in the TEM Division. The ATMAE summary letter to Dr. Rick Bateman, Chancellor, is attached in **APPENDIX A**.

Potential Strength of the Center: Established National Security Agency/Department of Homeland Security Academic Center of Excellence

In 2012, the National Security Agency and the Department of Homeland Security named BPCCC as a National Center of Academic Excellence in Information Assurance 2-Year Education. BPCCC is one of the first 13 schools across the nation awarded this honor.

BPCCC earned this designation by being a leader in information security education, curriculum development, faculty training, in Northwest Louisiana. BPCCC 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.

BPCCC is one of a select group of community colleges nationwide to achieve all six of the Committee on National Security Systems (CNSS) standards certifications. BPCCC now holds CNSS 4011-4016 certifications.

Potential Strength of the Center: Community and Industry Support

Community and industry support are illustrated in numerous ways throughout the proposal, but the largest tangible symbol of this immense support is the new 80,000 square foot STEM building. Through close partnership with the Cyber Innovation Center, the state-of-the-art Nursing and Allied Health building will also house BPCCC's Cyber Enterprises. Cyber Enterprises is an innovation that accelerates the blending of workforce and academics. Through community and industry support, Cyber Enterprises will serve as a small business incubator, provide team internship experiences to students and faculty, and facilitate collaboration among public and private workforce and academic partners.

The following potential strengths are additional examples of community and industry support:

- Responsive programmatic advisory board that contributes new ideas to the curriculum;
- Regularly interact with industry partners to provide students opportunities to prepare for entering the workforce;
- Internship program enables students to obtain real-world work experience;
- Articulation agreements with LSU-Shreveport, Northwestern State University, University of Maryland University College, and Capitol Technology University;
- Letters of support are provided **APPENDIX B**

Potential Strengths of the Center: Geographic Location

BPCCC is located in the northwest region of Louisiana and serves Regional Labor Market Area 7 (Bienville, Bossier, Caddo Claiborne, DeSoto, Lincoln, Natchitoches, Red River, Sabine, and Webster). The Center's geographic location places it near several large IT-focused organizations such as Barksdale Air Force Base (8 miles), the Cyber Innovation Center (.05 miles), and CSRA (.05 miles) and educational institutions such

as Louisiana Tech University (63 miles), Louisiana State University-Shreveport (17 miles), Grambling State University (58 miles), and Northwestern State University (84 miles).

Highlights of Potential Strengths of the Center

The following items are potential strengths of the Center:

- Fourteen courses align directly to industry-based cyber certifications;
- New content or courses are being added to the curriculum to keep the program current with technology trends;
- Program is ATMAE accredited;
- Foundation classes are well-established and faculty and staff are willing to accept change and expand the program through regular, ongoing professional development;
- Strong industry and community support, and
- Located near several large academic and employer partners.

List of Program(s) and Program Data

The Associate of Applied Science in Cyber Technology prepares students for careers in computer technology. The program has two concentrations: Network Security and Programmer Analyst.

The Network Security concentration of the Cyber Technology curriculum focuses on security and network implementation. Students in the concentration complete a program of study that focuses on learning the needed skill sets to set up and administer multiple sizes of networks. The concentration prepares students to function at the entry level and work in a team environment.

The Programmer Analyst concentration of the Cyber Technology curriculum focuses on software development, web design, and database design. Students in the concentration complete a program of study that focuses on learning multiple programming languages and learning the techniques to debug and test software. The concentration prepares students to function as entry-level programmers and work in a team environment.

In the last year, several changes were made to the Programmer Analyst concentration of the Cyber Technology curriculum. Assembly language programming was removed from the curriculum because it is rarely used in modern software development. The web design and HTML curriculum was reduced from two classes to one class because two classes are not required to cover the content. Additionally, a new class in interactive video game design was added to the concentration.

Another significant addition to the Cyber Technology curriculum in the past year is the Programmer Portfolio. Program faculty added this element to the curriculum because of a lack of industry certifications in the programmer discipline. Students that wish to complete a programmer portfolio as part of their degree plan will design and build two projects that use two different programming languages. The students can then use the completed portfolio in job interviews to show prospective employers the level of programming expertise the student has.

Program Learning Outcomes

The Associate of Applied Science in Cyber Technology with a concentration in Network Security program provides students with the skills needed to manage an organization's network security needs. The program prepares individuals to function as entry-level network security specialist, and includes instruction on technologies to keep network assets secure, conducting forensic analyses, encryption techniques, and organizational security management.

Recipients of the Associate of Applied Science in Cyber Technology with a concentration in Network Security will be able to:

- A. Read and interpret technical literature and convey technical information through verbal and written communication;
- B. Analyze critically and solve real-world security issues understanding the legal and ethical concerns;
- C. Demonstrate security awareness in order to react to new developments in their field;
- D. Utilize critical thinking skills to collect, analyze, and interpret technical data collected through investigation and experimentation; and
- E. Implement computer networks and firewalls both physically and logically.

The Associate of Applied Science in Cyber Technology with a concentration in Programmer Analyst program focuses on programming techniques for software applications. The program prepares individuals to function as entry-level programs in a team environment, and includes instruction in a variety of programming languages on programming logic, writing and executing code to create and troubleshoot software applications, data structures, and computer architecture.

Recipients of the Associate of Applied Science in Cyber Technology with a concentration in Programmer Analyst will be able to:

- A. Read critically, interpret, and document technical information accurately;
- B. Analyze critically and solve real-world end-user problems;
- C. Implement programs in multiple computer languages;
- D. Debug and test software;
- E. Utilize critical thinking skills to collect, analyze, and interpret technical data; and
- F. Describe application web server and programming as well as the ability to program websites and computer applications.

Assessment and Alignment with Course Learning Outcomes

Though course learning outcome data has been collected for this program in the past, the process and consistency with the analysis of the data needs improvement. The Course Learning Outcomes collection was modified starting with Academic Year 2014-2015. With the changes being made with the assessment of our Program Learning Outcomes, the measurable competencies from course learning outcomes are linked to program learning outcomes from Academic Year 2016-2017 forward. Validation of the program learning outcomes are reviewed by faculty after each semester and by the program advisory board members at least once a year. Validation of the course learning outcomes are reviewed by faculty after each semester and by the program advisory board members for input and feedback when changes are required based on the data collected. The program director and faculty focus on

improving the Assessment Methods and the manner in which they are used to take action towards improvements for the program. The Course Learning Outcomes data and the Program Outcomes data are analyzed after each semester and at the end of each academic year. See the Program Outcomes Table in **APPENDIX C** for summary data of Program Learning Outcomes.

Faculty and Administration

List of Core and Affiliated Faculty Members

Thomas Hopkins, Assistant Professor for Cyber Technology; B.S. in Botany from Louisiana Tech University; M.A. Human Resources Development from Webster University; 18 + Hours of Graduate Computer and Information Systems Courses

Pam Milstead, Associate Professor and Program Director for Computer Information Systems; B.S. in Business Education from Louisiana Tech University; M.S. in Business Education from Louisiana Tech University; 18+ Hours of Graduate Computer Information Systems Courses

Chris Rondeau, Professor and Program Director for Cyber Technology – Network Security; B.S. Business Education from Northwestern State University; M.Ed. in Educational Technology from Northwestern State University

Al Shaw, Instructor and Program Director for Cyber Technology – Programmer Analyst; B.S. Computer Science from University of Nebraska; M.S. Computer Science from Air Force Institute of Technology

Annette Shows, Associate Professor of Computer Information Systems; B.S. in Business Education from Louisiana Tech University; M.B.A. from Louisiana Tech University; 18+ Hours of Graduate Computer Information Systems Courses

Dr. Paul Weaver, Professor of Computer Information Systems; Bachelor of Criminal Justice from Louisiana State University-Shreveport; M.S. in Systems Technology from Louisiana State University-Shreveport; Ph.D. in Curriculum and Instruction from Trinity College and Theological Seminary

Jennifer McCoy, Instructor for Cyber Technology; Associate of Applied Science in Business Administration from Bossier Parish Community College; Associate of Applied Science in Health Care Management from Community College of the Air Force; Bachelor of Science in Management and Computer Information Systems from Park University; Master of Science in Computer Information Systems from University of Phoenix

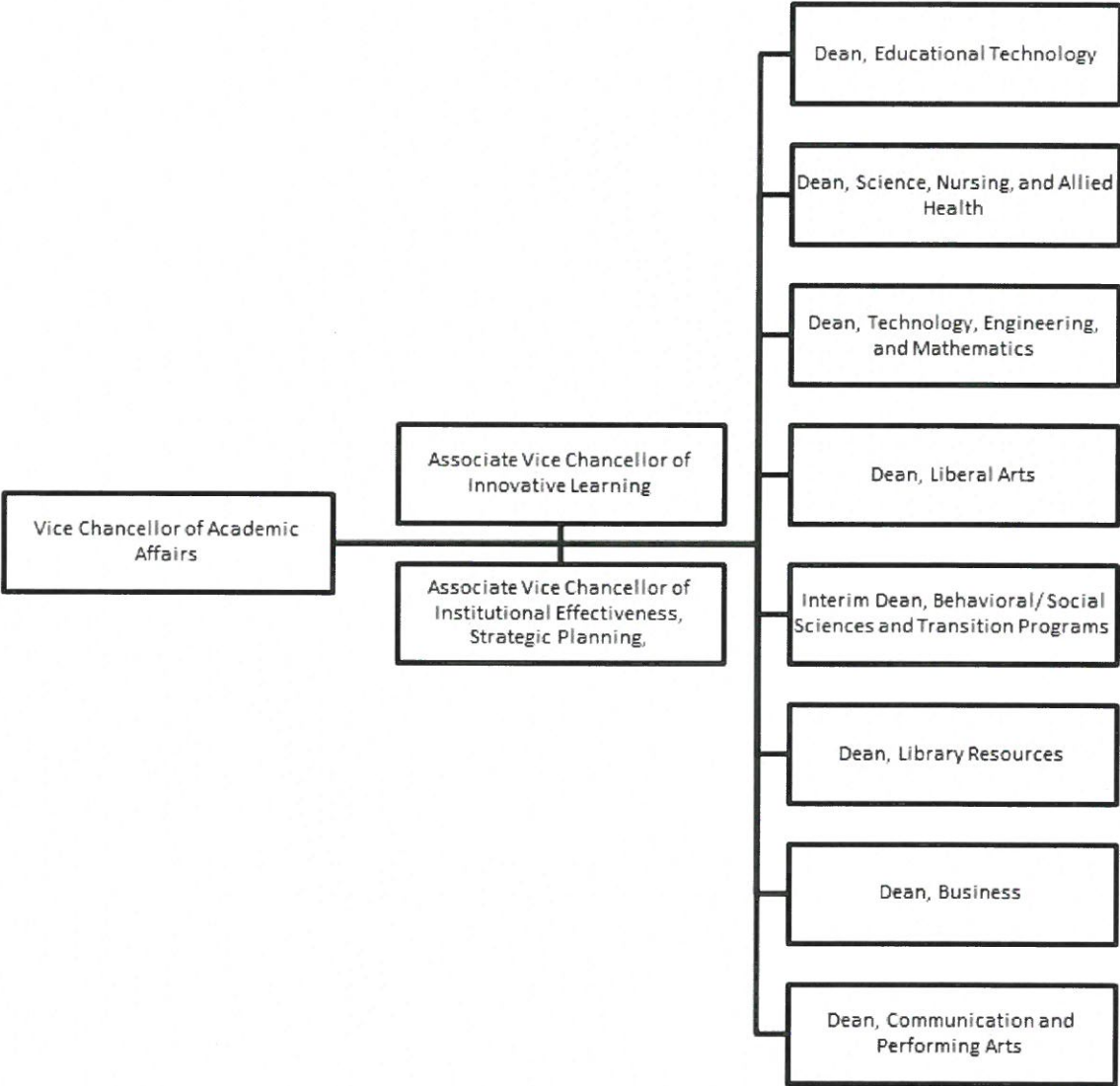
Don Rider, Instructor for Cyber Technology; Associates of Applied Science in Information Network Specialist from Bossier Parish Community College; Bachelor of General Studies from Louisiana Tech University; Master of Arts from Louisiana Tech University

Administrative Structure

The organizational structure for Bossier Parish Community College is illustrated in **Appendix D**.

Effect on the Present Structure of the Campus

The Center of Workforce Excellence will not affect the present campus structure. The current BPCCC organizational chart for the Division of Academic Affairs is shown in the following diagram. The present academic structure consists of eight divisions with deans that report to the Vice Chancellor for Academic Affairs. Programs to be included in the Center will report to the same dean, Sandra Partain, who will oversee the Center.



Budget

Institutional Infrastructure Improvements

Bossier Parish Community College strives to be forward thinking in regards to technology and its need in the ever-changing higher education environment. BPCCC strives to set the goal of being equipped for the needs of today, but also to be prepared to support the increasing demands of the future. There is no

greater evidence of this than the recent \$500,000+ overhaul of our entire campus network infrastructure. Over the course of the past eighteen months, every piece of network infrastructure has been replaced with hardware to help future proof the college, from our external ISP connection to the access switches that supply connectivity to user computers. This process was made possible by a joint effort from multiple departments including Computer Services, Technology, Engineering and Mathematics (TEM), and Student Services to secure the required funds via grants and technology fees.

Starting first with our connection to the outside world, BPCCC has been a subscriber to the Louisiana Optical Network Initiative (LONI) for a number of years. LONI is a state-of-the-art, fiber optics network spanning 1600 KM of backbone fiber across Louisiana and portions of Mississippi providing high-performance network connectivity to higher education institutions. Initially we were connected to this resource via a metro ethernet connection to LSUHSC in Shreveport. Over the summer of 2016, we installed a direct fiber connection to LONI increasing our available bandwidth 400% with hardware support in place for potential of growth in connection speed to 1000% (10GB/s) above our initial setup.

We also replaced our central network stack (firewall, router, and core network switch) with premier Cisco components. We selected and implemented a Cisco ASA 5555x firewall that utilizes Cisco Firepower software to monitor and prevent a number of potential threats to network security. This Layer 7 firewall gives us an unprecedented level of visibility into the traffic on our network. We replaced our primary gateway router with a Cisco ISR4451-X. Finally, we replaced our core network switch with a Cisco 6880x. This switch is the central backbone of our network that connects our data center, as well as the distribution switches, located in each building. This addition easily supports our current number of connections to it with the potential to support growth to an unprecedented amount of connected devices. This core also supports speeds up to 40GB/s, a 4000% speed increase over previously installed hardware.

Moving out from the central stack to our data center, we implemented dual Cisco Nexus 9300x data center switches. These two switches allow 40 GB/s inter-switch communication as well as provide 10 GB/s connections directly back to our core switch. This change in architecture allows servers in our data center to communicate at an elevated level or speed without imparting the extra work needed in switching on our network core switch. That reduction in load provides a measurable increase in total network performance.

Moving from the core network switch to the individual buildings, we have 10GB/s single mode fiber connections, a 10x speed increase. In each building, we have implemented Cisco 3650 switches as distribution switches. These 100/1000/10000 switches offer a minimum increase in speed of 1000% with a potential maximum speed increase of 10,000% dependent on connected hardware. From each distribution switch, we connect, via 10GB/s multi-mode fiber to Cisco 2960x 100/1000/10000 access switch stacks located on each floor. The same model of switch we previously installed to implement our Cisco VOIP phone system and Cisco wireless architecture. The number of switches per stack, per floor varies based on connections per floor and expected growth. In total, we have implemented 34

additional 2960 switches across the 8 main instructional buildings. These 2960's are the last step before end user devices (i.e. computers, printers, etc.) are connected.

Also, to better support temporary events (i.e. open registration, temporary classrooms, etc.) on campus and shorten the lead time to stand those events up, we added a number of smaller 8 and 12 port switches (Cisco 2960c and 3560c respectively) to the campus' inventory.

The BPCCC wired network currently supports over 2000 unique wired devices and has added the ability to support an additional 25% increase in connected devices in the coming years with no need for additional hardware. This infrastructure itself, through the increase of additional distribution and access switches, is capable of supporting a number of devices that we could not physically store in in our existing building floor plans.

Overview of Network Infrastructure Upgrade

Implementation Phase	Cost
Phase I: Core Network Stack/Data Center Overhaul <ul style="list-style-type: none"> • LONI direct fiber install • Router: Cisco ISR 4451 • Firewall: ASA5555x w/ Firepower • Core Switch: Cisco 6880x • Data Center Switches: Cisco Nexus 9330x (qty. 2) • Support, Licensing, & Install materials 	\$232,186.00
Phase II: Switches for Buildings <ul style="list-style-type: none"> • Distribution Switches: Cisco 3650 • Access Switches: Cisco 2960x • Support, Licensing, & Install materials 	\$182,142.80
Phase III: Additional Switches for Buildings <ul style="list-style-type: none"> • Access Switches: Cisco 2960x • Support, Licensing, & Install materials 	\$73,286.29
Phase IV: Switches to Support Events (i.e. open registration, etc.) <ul style="list-style-type: none"> • Cisco 2960c • Cisco 3560c 	\$16,840.00
Total Cost	\$504,455.09

Program Health Index Report

The Program Health Index (PHI) Report (**APPENDIX E**) for the 5 star Associate of Cyber Technology program includes information for the Certificate of Technical Studies (CTS) in Information Systems Security Professionals, CTS in Digital Gaming, CTS in Senior Systems Managers , Technical Competency Area (TCA) in Cisco Certified Network Associate, TCA in Information Technology, and TCA in Web Design. 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.

Cyber Technology Program

The Cyber Technology Program is currently supported by the general budget for the Division to include 4 full-time faculty members and 2 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 Cyber Technology Program has made efforts to enhance student learning success by seeking national, state, and internal grants. Grants related to the AAS in Cyber Technology or support Cyber Technology initiatives are listed in **Appendix F** and described in further detail in the section Grants, Pledges, and Future Viability.

Measures for the Center of Excellence

Enhancing the Institution

Our Louisiana 2020

The Louisiana Community & Technical College System's Our Louisiana 2020 goals demonstrate the State's appreciation for the synergy that must occur with education and workforce to influence and economic change. The intent of these goals align with the institution's mission and alignment of specific 2020 goals to goals in the BPCC Strategies for Success Plan (2014-2019) are discussed below.

Strategies for Success Plan (2014-2019)

The mission of Bossier Parish Community College is to promote attainment of educational goals within the community and strengthen the regional economy. The mission is accomplished through the innovative delivery of quality courses and services. The College provides a wholesome, ethical and intellectually stimulating environment in which students develop their academic and vocational skills to compete in a technological society. This mission is accomplished by achieving the goals set forth in the Strategies for Success Plan. Although each goal moves the institution forward, there are two goals that most directly align to the objectives of the Center.

Goal II: Enhance educational programs and services to maximize student development and satisfaction.

Objective II.1: Increase educational technologies to include technical support, training, and technological capabilities to enhance and/or enhance programs and services. This objective also aligns to the Our Louisiana 2020 goal to double the number of graduates.

Objective II.2: Increase student opportunities and awareness of academic and career options. This objective also aligns to the Our Louisiana 2020 goal to double the annual earnings of graduates.

Goal III: Utilize partnerships to expand educational and economic/workforce development.

Objective III.1: Increase the number of secondary students enrolled by 5% from the fall 2012 baseline of 299 to 314 in fall 2018. This objective also aligns to the Our Louisiana 2020 goal to double the number of students served.

Objective III.2: Pursue new and support existing partnerships with business and industry leaders through all college divisions to enhance the growth of the College. This objective also aligns to the Our Louisiana 2020 goal to quadruple partnerships with business and industry.

Objective III.3: Develop articulation agreements to expand educational and vocational opportunities for students. This objective also aligns to the Our Louisiana 2020 goal to quadruple the student transfers for four-year universities.

Performance Outcomes

Other measures of the Center of Excellence performance include program enrollment, number of graduates, industry-based cyber certifications that align to program courses, number of cyber industry-based certifications earned, and accessibility to testing facilities to achieve national cyber industry-based certifications.

Program Enrollment

Students Enrolled in the AAS in Cyber Technology program	
Academic Year	Students Enrolled
2013-2014	97
2014-2015	238
2015-2016	254

Number of Graduates

Graduates with an AAS in Cyber Technology (both concentrations)	
Academic Year	Number of Graduates
2013-2014	3
2014-2015	13
2015-2016	34

Certifications and other Credentials

After roundtable discussions with industry partners about the value of Industry Based Certifications (especially for the Network Security students), the cyber faculty proposed to the advisory board a new course requirement for the CIT 299: Cyber Internship course. The new requirement states, “Students must provide proof of passing two (2) approved Industry Based Certifications, OR two (2) approved programming project portfolios, OR one of each.” The division currently offers the following courses mapped to specific certifications.

Certification Exam (Industry-Based Certification)	Course Certification Exam is Mapped To
Network +	CIT 101
A+	CIT 112
CIW JavaScript Specialist	CIT 149
SCJA Java	CIT 151
Microsoft 70-410	CIT 170
ICND1	CIT 221
ICND2 or CCNA	CIT 222
ISC 2/CISSP	CIT 224
Security +	CIT 225
Linux + Part 1 and 2	CIT 272
ACE	CIT 280
Project +	CIT 282
Configuring Windows Devices and Installing Configuring Windows	CIS 114

Cloud Essentials	CIS 250
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In addition to the certifications listed above, the following additional certification exams are also available for students to take in the BPCC Testing Center:

IT Fundamentals
 Cloud +
 Mobility +
 Server +
 Mobile App Security +

Summary of Students Earning Certifications for AY 2014-2015	
*Totals include all certifications sections (Ex. A+ and IC3 have multiple sections)	
Summer 2014	1 (Net+)
Fall 2014	108 (Net+, IC3, A+, Security+)
Spring 2015	38 (IC3, A+, Security+)
Total over three semesters	147

Grants, Pledges, and Future Viability

Federal Grants

TAACCCT 2

In 2012, BPCC received a 14.7 million dollar grant over three years from the Department of Labor to serve as the consortium lead of nine community colleges focusing on Cyber Technology and Health Information Technology.

Carl Perkins 2013-2014

7/1/2013-6/30/2014: A total of \$7,785 allowed two instructors to travel to Access Data Users Conference, Dee Fink & Associates Curriculum Conference, NISOD Conference, and The Colloquium for Information System Security Education Conference.

Carl Perkins 2014-2015

7/1/2014-6/30/2015: \$4262 allowed an instructor to travel to the CISSE Conference and the NISOD Conference. In addition to travel funds, \$11,463.89 was awarded to purchase two Interactive Flat Panel Display boards with Notebook Software, HDMI Cable, SMART Mount, Warranty and Installation. For use in the Mobile Applications classrooms, this equipment combines a premium touch experience with the power of Smart Notebook collaborative learning software on a 65" LED display. The HD 4K provides brilliant, detailed, and crisp images to ensure every student remains engaged in the lesson. Lesson content for the mobile applications class and gaming development class comes to life on the display, so the students easily see all the details and interact with them just like how they interact on a smart phone or tablet. Two students can simultaneously touch and write on the display in differently colored

pens. This product allows the whole class to test and debug apps and games on one screen, while allowing the instructor to keep all students engaged and interested for the entire experience. Keeping students engaged supports our retention and completion of the program.

Carl Perkins 2015-2016

7/1/2015-6/30/2016: \$2223 allowed one instructor to travel to the CNSS Conference. This professional development opportunity maintains the CNSS certification of our program. The instructor is able to learn more about changes anticipated in the certification and how to continue to produce students that are able to achieve the Industry Based Credentials needed for employment in the Cyber industry.

State Grants

CSRA/LED

In 2014, BPCC received a 2.5 million dollar grant over ten years from the State of Louisiana and the Louisiana Department of Economic Development to provide BPCC students with the latest IT skills currently being sought by leading technology companies in Louisiana such as CSRA.

Rapid Response Grant FY 2015-16

TEM was awarded a total of \$1 million in Rapid Response funding in FY 2015-2016 to develop and/or support projects in the areas of non-destructive testing (\$386,667), advanced welding (\$281,667), and the expansion of cyber education online (\$331,667). These funds helped to improve educational opportunities and serve business partners and the community in a unique way. TEM also partnered with Perceptive Intelligence and CSRA to develop content for distribution through this platform. Over one hundred members of multiple Louisiana law enforcement agencies have received onsite training in phase 1 of the Perceptive Intelligence project and numbers served will continue to rise over the as the project transitions into phase 2. Nearly one hundred cyber, industry-based certification exams were attempted by CSRA employees after participating in summer boot camp-style training provided by the Rapid Response grant.

Rapid Response Grant FY 2016-17

TEM was awarded a total of \$480,000 in Rapid Response funding for FY 2016-2017 for the development of Cyber – Background Investigators Training. This project is an expansion of our relationship with CSRA into a new area of instruction that utilizes strategies and best practices gained from the Rapid Response Grant FY 2015-16 Cyber Project.

BOARD OF REGENTS E-Reader Project

This grant, which totaled \$62,000, enabled implementation of the mobile device Electronic reader pilot for our school. The goal of the project was to provide students and educators with the opportunity to try mobile devices in the classroom and lab environment. It is felt that electronic books and lab projects will continue to increase so this was an opportunity for BPCC as a college to conduct our own study on the feasibility and use of electronic media in the classroom. In addition to the cost of traditional textbooks on the rise, E-Books are quickly finding a place in many areas of our educational system. The proposal for this funding was written in 2012 and the funding was awarded in spring 2013. The funding was used to purchase:

- 47 iPad3 with cases and keyboards
- 47 Samsung Galaxy Tab2 with cases and keyboards
- 4 Samsung Notes with cases and keyboards
- 3 storage cabinets with dividers
- 8 CISCO Access Points for Internet Connectivity
- Additional power supplies for all devices as replacements parts
- Multiple types of adapters for instructors to aid in use in the classroom environment

Private Grants

J.P. Morgan Chase Workforce Grant

The \$40,000 investment from J.P. Morgan Chase will be leveraged with existing partnerships to offer a comprehensive training plan and strategy for Cyber Technology students, which include instructional delivery to offer intensive compressed short-term workforce boot camps or modules as well as longer-term workforce initiatives that include paid apprenticeships, internships, and on-the-job training opportunities with local partner companies. The strategy addresses workforce gaps by giving students a foundation in workforce readiness, academic coursework, work place experience, and wrap-around support services to ensure success.

Institutional Grant

Student Technology Fee Grant, Spring 2016

This \$31,424 grant replaced computers, monitors, and a printer in a student computer lab in spring 2016. The improvement of this computer classroom/laboratory impacted hundreds of students because it is utilized for traditional computer classes as well as specialized testing for the entire institution (i.e., placement testing, institutional exit exams, etc.).

Scholarships

Johnny Wyatt Public Service Excellence (Memorial) Scholarship

The purpose of this scholarship is to support BPCF criminal justice and cyber technology students. The scholarship honors Marshal Johnny G. Wyatt who set the standard in law enforcement for the Caddo-Bossier Community, the region, and the State of Louisiana in the area of marshal operations for communities large and small. In addition, his dedication to protecting the youth of our community through the establishment of the Northwest Louisiana Crimes against Children Task Force has brought national recognition to the Bossier City Marshal Office concerning efforts to stop cybercrimes. One scholarship is awarded each year with the award amount totaling \$1000.

Board of Regents Endowed Scholarships for 2 Year Programs

In June 2016, the Cyber Technology Program was awarded a Board of Regents Endowed Scholarship. The private match was \$10,000 and public match was \$10,000 for fully endowed amount of \$20,000.

NAME OF FUND	Private Match	Funder	Public Match	Total	Date Originated

Assoc. of Applied Science in Cyber Technology	\$10,000	BPCC Foundation (Capital Campaign Funds raised from private donors)	\$10,000	\$20,000	June 2016
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Proposed Program

BPCC OnDemand™

BPCC OnDemand™ was developed while meeting objectives of the Rapid Response FY 2015-2016 grant. Because of the robustness of the platform, the opportunities for its utility continue to be explored and offerings are being expanded.

Proposed Projects

Cyber Boot Camps - BPCC OnDemand™

Cyber Boot Camps were developed and conducted to support CSRA employee achievement of industry-based certifications for Network+, Security+, CISSP, and ITIL. While conducting the live boot camps, *BPCC OnDemand™* content was also being developed, so that the population that can be served by these Cyber Boot Camps can be expanded.

Background Investigator Training - BPCC OnDemand™

Bossier Parish Community College proposes to establish a **Background Investigator Training (BIT)** program in collaboration with CSRA that will increase the national capacity of certified background investigators who can validate IT workers requiring security clearances. This initiative is beneficial in that it 1) further insulates and supports BPCC’s existing Cooperative Endeavor Agreement with CSRA and the state to cultivate a regional IT workforce, 2) lays the groundwork to establish Louisiana as a federal government training hub, 3) generates additional revenue streams for BPCC, 4) expands the student base, and 5) reduces dependence on state monies for operation.

CSRA currently oversees background investigations on behalf of U.S. Office of Personnel Management (OPM), U.S. Citizenship and Immigration Services, U.S. Customs and Border Protection (CBP), U.S. Immigration and Customs Enforcement (ICE), and the Intelligence Community. CSRA recently won a contract through OPM to expand its capacity to perform more background investigations nationwide. As an awardee, CSRA has obtained access to OPM’s training curriculum and has in turn used the content as the basis for the developing CSRA specific training curriculum. BPCC will have access to a fully vetted and comprehensive training curriculum that meets NTS (National Training Standard) guidelines. BPCC having access to the curriculum earlier within the grant and not having to develop curriculum will allow for a seamless and rapid rollout of the training. In addition to accessing the curriculum, CSRA will provide a program consultant at no charge who will lend valuable insights and verify that the overall construct of the program is consistent with the CSRA’s grant deliverables.

The BIT program will benefit from BPCC’s partnership with the Barksdale Air Force Base. Barksdale employs more than 12,000 military personnel on base with many of those individuals holding top-level

security clearances. Personnel who are transitioning from the military and into a second career would be eligible to become certified background investigators by participating in the BPCC/CSRA training program.

BPCC has the capability to offer courses in a variety of formats including face-to-face, online, hybrid, credit, and non-credit. *BPCC OnDemand™* is a new learning platform that would be utilized that allows participants to easily register for courses, instantly access the course materials, and bypass the traditional, cumbersome steps involved when enrolling into a college. This rapid access can help expedite the turnaround-time necessary for participants to become certified background investigators.

The background investigator occupation is unique in that there is not an exact alignment. However, the CIP codes that best align with the occupation are 43.0399 (Homeland Security, Other) and 43.0114 (Law Enforcement Investigation and Interviewing). Outcomes for the program include 100 participants enrolled and 80 participants completing the training program.

According to CSRA, Louisiana is one of 11 hotspots for CBP and ICE. Additionally, the background investigators training program at BPCC will be one of the first in its kind to be housed within an academic institution. Developing a new training program which would serve one of our biggest employer partners in CSRA and also the federal government would catapult BPCC and the state of Louisiana onto the national platform as a federal government training hub.

Willis Knighton Healthcare System - BPCC OnDemand™

On February 6, 2017, Willis Knighton Healthcare System met to with the Chancellor and Dean of Technology, Engineering, and Mathematics to discuss BPCC providing Willis Knighton Healthcare System Training via *BPCC OnDemand™*. Willis Knighton will be forwarding content to be customized for *BPCC OnDemand™*.

Center of Academic Excellence in Geospatial Sciences

In September 2016, TEM began exploring options for becoming a Center of Academic Excellence in Geospatial Science. In October 2016, TEM sent a faculty member to the National Geospatial-Intelligence Agency (NGA) in Springfield, Virginia, about 10 miles from Washington, DC to learn about NGA and explore the possibility of BPCC becoming a Center of Academic Excellence in Geospatial Sciences.

“NGA delivers world-class geospatial intelligence that provides a decisive advantage to policymakers, warfighters, intelligence professionals, and first responders. NGA enables the U.S. intelligence community and the Department of Defense to fulfill the President’s national security priorities to protect the nation.” (www.nga.mil)

The Center of Academic Excellence (CAE) in Geospatial Sciences (GS) program was created to assist NGA in building partnerships with American’s academic community in support of geospatial needs and challenges. Key areas of emphasis for the CAE are in research, information technologies, data sciences, analytics, and workforce strategy.

Service to the Greater Community

The following events are examples of the scope and breadth of service the Center will provide to the community.

Cyber Student and Faculty Represent BPCC at the State Capital

During the Louisiana Workforce Experience and inaugural Taste of Louisiana community college culinary arts showcase held on April 28, 2016, at the Louisiana State Capitol in Baton Rouge, Louisiana, Cyber Technology students Lacy Chism and Stacey Miller and Professor Chris Rondeau, Program Director of the Network Security concentration met with Capitol visitors and lawmakers. The students demonstrated what they are learning in their various fields of study and provided onlookers a glimpse of the technology used in the classrooms at BPCC. For the last three years, Cyber students have continued to meet at the State Capital to demonstrate the importance of STEM and potential for the future of the State.

BPCC'S Technology, Engineering, and Mathematics' Career Fair Designed for Attendees to Learn Employers' Needs

Press Release, July 7, 2016

Participants attending BPCC's Technology, Engineering, and Mathematics (TEM) Career Fair will be able to talk first-hand with local employers in order to learn what skills they are looking for in employees.

"This career fair is not going to be your typical career fair," says Sandra Partain, dean of BPCC's Technology, Engineering, and Mathematics division. "Our goal is to provide information about technology, manufacturing, and engineering careers and give people the opportunity to talk and ask questions of those employers in those industries, as well as give attendees information on the training available to have them job ready quickly."

The TEM Career Fair is set for **10:00 am-2:00 pm on Friday, July 10 in the Center for Advanced Manufacturing (Building L) on the BPCC campus, 6220 E Texas St., Bossier City, LA.** The fair is free and open to the public.

Anyone is welcome to learn about an industry and what it will take to be trained in that industry. "We encourage anyone to attend who is interested in a new career or wants to retrain for another career," adds Partain. "Just because someone isn't qualified for a particular career field does not mean he or she should not attend."

Some of employers on hand include Ternium USA INC., Ronpac, Omni Specialty Packaging, CSC, Xentient LABS LLC, Benteler Steel/Tube, Manitawoc Fryer Master, International Paper–Mansfield Mill, Sabre Industries, and Allegiance.

Attendees will also get a chance to find out more about training opportunities and how quickly they can receive training for the particular career in which they are interested.

“We will have representatives from BPCC’s technology, manufacturing, and engineering programs on hand to let people know: 1) how easy and fast it is to get trained or retrained for a new career, and 2) step-by-step how to apply and to register for training,” says Partain.

Representatives from BPCC’s Admissions and Financial Aid Offices will also be in attendance.

Economic Impact

According to the Louisiana Workforce Information Review 2016, there are 15,402 professional and technical jobs expected to be added from 2013-2015. In 2014 and 2015, average occupational annual wages for computer and mathematical occupations were \$62,366 in Louisiana.

The information below summarizes the IT industry in Northwest Louisiana. Most of our students take these two particular types of jobs which are aligned to associate degrees and are also highly rated star jobs according to the LA Works website.

- **Average salaries in NW Louisiana**
 - \$43,759 - **Computer User Support Specialist**. Source: Louisiana Workforce Commission
 - \$45,236 - **Computer Network Support Specialist**. Source: Louisiana Workforce Commission
- **Percentage of Associate degrees in NW Louisiana**
 - 58.9% of **Computer User Support Specialist**. Source: Burning Glass
 - 58.9% of **Computer Network Support Specialist**. Source: Burning Glass
- **Estimated Demand in NW Louisiana**
 - 420 jobs (Five Star job rating) - **Computer User Support Specialist**. Source: Louisiana Workforce Commission
 - 140 jobs (Four Star job rating) - **Computer Network Support Specialist**. Source: Louisiana Workforce Commission
- **Certifications in US**
 - 93% of hiring managers believe certifications are beneficial Source: CompTIA
- **Unemployment in US**
 - 2.8% for IT whereas general unemployment is 5.9%. Source: CompTIA

Cyber programs prepare BPCC students for the workforce

STAFF REPORTS

The emergence of companies in the area have created more opportunities for IT job seekers than ever before. This past year, Computer Science Corporation (CSC) has posted over 475 job ads for its Bossier City location with many positions requiring only an associate's degree. As a result, students with Cyber Technology degrees from Bossier Parish Community College have been hired as CSC continues to build its next generation of skilled IT workforce.

Lacy Chism, a BPCC Cyber Technology student, shared how the program has helped her. "BPCC is the only school I've seen that truly cares for the student beyond the classroom. Not only do you receive a top-notch education that is viable in today's workforce but you also have the opportunity to participate in programs that teach you how to market yourself for employment. BPCC really goes the extra mile for their students!"

"The demand for IT jobs is continuing to rise in our area and we have worked closely with companies like CSC to meet their needs, fine-tune our programs accordingly,



Pictured are BPCC's IT partners who received the Champion Level Partner Award (CSC, ECS/Synapse, and xentientLABS) and BPCC's Cyber program staff. Partners at the Champion level provide paid/unpaid internships for students; provide professional development and industry certifications to faculty and staff; provide scholarships for students; and utilize BPCC for incumbent worker training.

and prepare our students for success in the workplace," says Sandra Partain, dean of Technology, Engineering, and Mathematics at BPCC.

BPCC stood up its Cyber Technology program in 2009 and in six short years has managed to turn the program into one with both quality IT content and hands-on learning.

"Students in our Cyber Technology program can expect to intern with local IT partners, participate in student success workshops, engage with faculty in a small classroom setting, and participate in mock interviews with IT employers," adds Paul Spivey, Project Advisor and Knowledge

Content Lead at BPCC. "These benefits are all geared toward helping students ultimately find a job in the IT field."

BPCC is an academic partner of Cisco, CompTIA, and Microsoft. These partnerships provide value to students in the form of reduced prices on national industry based certifications, many of which are mapped to BPCC's Cyber Technology courses. BPCC is also a National Center of Academic Excellence in Information Assurance (2-Year Education) through the National Security Agency and the Department of Homeland Security. BPCC continues to be ranked among the fastest

growing community colleges in the country. BPCC has become an educational leader in the area of cyber technology, and because of its open enrollment policy, anyone can become a BPCC student and within two years or less be prepared for a successful job in the IT field.

For more information, visit www.bpcc.edu/tem. Those interested in completing an application and enrolling in BPCC's Cyber Technology program can email cyber@bpcc.edu or call 678-6468. Online registration for the spring semester continues through Jan. 13. Classes begin on Jan. 15.



BPCC Cyber students get to meet first-hand with community IT partners. Pictured is Cesar Marrero, president and CEO of xentientLABS, speaking with a group at the Technology, Engineering, and Mathematics Career Fair for students.

BPCC NEWS

BPCC has received a \$1,000 donation from the Manufacturing Managers Council of Northwest Louisiana (MMC) in memory of Red Ball Oxygen's late founder

Gary Kennedy. The donation will benefit BPCC's Advanced Manufacturing Program. MMC has pledged to make the donation annually.



Collaboration with Other Entities

Information Assurance Reciprocity and Partnership

Since 2011, BPCC officially entered into an Information Assurance Reciprocity and Partnership agreement with Louisiana Tech University (**APPENDIX G**). The agreement includes "course sharing, information sharing, faculty sharing (advisory boards), reciprocity of course credits where possible given accrediting agencies and the State of Louisiana Reciprocity Agreement."

Louisiana Cyber Security Education Consortium (CSEC)

Since 2008, BPCC has received over \$200,000 in funding from the National Science Foundation as a member of the Cyber Security Education Consortium providing opportunities to participate in workshops, share curriculum, and partner with other CSEC members.

Since 2010, BPCC's Cyber Technology program is a leader in the support of Cyber Security Education Consortium in Louisiana and its objectives. BPCC's Cyber Technology program has been awarded grant funding to support professional development of faculty, professional development of students, purchase of equipment, and development and continuation of program improvements and cyber student success initiatives.

Cyber Innovation Center

The division collaborates to offer courses for the Cyber Innovation Center and its company affiliates. The relationship between Bossier Parish Community College (BPCC) and the Cyber Innovation Center (CIC) has been positive. This collaborative relationship has resulted in a grant project and continuous dialogue and service to one another. The following are examples of CIC and BPCC collaborations:

CIC/Louisiana National Guard Training Contract

Between March 6, 2013 and March 5, 2014 Bossier Parish Community College worked with the Cyber Innovation Center to serve the Louisiana National Guard by creating a module-based cybersecurity training program. The project was funded by the Cyber Innovation Center through a grant from the Governor's Office of Homeland Security and Emergency preparedness in the amount of \$66,560.

Bossier Parish Community College Advisory Board Meeting

The CIC attended the BPCC Cyber Technology Advisory Board meeting on March 20, 2013. CIC presented the details of the Louisiana National Guard Training contract.

Meeting with Zane State College, BPCC, and CIC

The CIC asked BPCC to attend a meeting on October 16, 2014, to serve as a resource to Zane State College, Ohio during their exploration of developing a cyber research park system. Representatives from Zane State College asked a range of questions. BPCC shared information describing how the CIC and BPCC work together to support local cyber initiatives.

Science Olympiad

Partnership developed during the 2013-2014 academic year. JoAnn Marshall handled the budget for CIC for expenses related to the Science Olympiad. CIC managed the logistics of event, registration, coordination with elementary schools, food, medals/trophies/certificates, and reimbursement of event supplies, and conducted the award ceremony. All staffing, content development and delivery, judges, and operation of the events was managed and coordinated by BPCC.

Campus Tours, Meetings, and Special Events

The Division of Technology, Engineering, and Mathematics is frequently contacted by CIC to assist or lead campus tours and attend meetings. The following are events BPCC was asked to assist CIC with or to participate in:

- 1/27/2015 Campus Tour of students from Pine Tree ISD, Texas
- 2/28/2015 BPCC TEM faculty served as judges for the CIC National Integrated Cyber Education Research Center Regional Autonomous Robotics Circuit competitions
- 3/20/2015 Meeting and campus tour with Dr. Srinivasa, Texas Southern University

Louisiana Economic Development (LED)

Louisiana Economic Development (LED) Faststart has an office on the BPCC campus at the Center of Advanced Manufacturing and Engineering Technology. The close proximity of this office encourages LED representatives to collaborate with the Division of Technology, Engineering, and Mathematics (TEM).

TEM is regularly presents its programs in partnership with LED when attempting to convince a new company to move to the region. As a result, strong employer relationships are built, institutional response time is reduced, and innovation is increased. This model is considered a best practice for the integration of academics and workforce initiatives and is now being replicated at another institution in the state.

Articulation Agreements

The Division of Technology, Engineering, and Mathematics continuously strives to provide students with pathways to success. Articulation agreements with four-year universities are another option provided to students.

Louisiana State University in Shreveport

On November 10, 2014, the AAS in Computer Information Systems, AAS in Cyber Technology with a concentration in Network Security, and the AAS in Cyber Technology with a concentration in Programmer Analyst from Bossier Parish Community College will transfer to Louisiana State University in Shreveport towards the BS in Computer Information Systems and BS in Computer Information Systems (Network Security). There is a defined curriculum for each program to transfer smoothly.

Northwestern State University

The Division of Technology, Engineering, and Mathematics at BPCC is proud to have several articulation agreements with Northwestern State University. These agreements outline the classes from BPCC that will transfer to the following NSU Bachelor's degree programs.

University of Maryland University College

All six of the "Cyber Information Technology Division" degree programs articulate to University of Maryland University College in a complete 2+2 agreement.

The articulation agreement was signed on October 1, 2010 and guarantees that any student in a Cyber Information Technology degree program will be able to matriculate smoothly into University of Maryland University College.

Capitol Technology University

The Division of Technology, Engineering, and Mathematics at BPCC was proud to sign an articulation agreement with the Capitol Technology University (CTU) in Washington DC on October 23, 2015. This agreement shows the classes from BPCC that CTU will accept into their Bachelor's degree in Cyber and Information Security. As a military friendly school, BPCC serves a number of military personnel and their families. If transferred to the DC area, BPCC students will be able to make a smooth transition into the Cyber program at CTU. The agreements below shows the classes from BPCC that CTU will accept into their Bachelor's degree.

Advisory Board Members

The Cyber Technology/Computer Information Systems Advisory Board is a committee created for the purpose of working with the Cyber Information Technology program and shall limit its activities to

advising on matters that directly concern the instructional program. The specific purposes of the Committee are to:

- Assist in placing students at employment sites;
- Determine necessary entry-level skills, attitude, and knowledge competencies as well as performance levels for target occupations in the community;
- Facilitate cooperation and communication between the program and the community;
- Assist in program evaluation and improvement; and
- Assist the program in setting priorities, including participating in ongoing planning activities of the program.

The advisory committee is expected to offer recommendations for instructional programs and to provide information relevant to policy about the instructional program to the administration and instructors.

Members of the Cyber Technology Advisory Committee are:

Stewart Thompson, BSBP

Zac Burson, Transition/Mentoring Coordinator, Bossier Parish Schools

Jeremy Cave, CentruyLink

Jim Malsch, ECS

Michael Farrington, Founder/Designer, MFN Creative

Cesar Marrero, Xentient LABS

Hilton Nicholson, Cyber Reef Solution

Lauren Schneider, CSRA

Spencer Taylor, Operations Manager, Allegiance

Ryan Tims, General Manager, Allegiance

Angie White, Senior Vice President, NLEP

John Zucco, Bowman Systems

Conclusion

Bossier Parish Community College (BPCC) has been recognized regionally and nationally for providing high-demand cyber training while maintaining quality and continuing to innovate. Earning the recognition as a Center of Workforce Excellence in Cyber Technology is important to BPCC, because it is a public declaration of our commitment to excellence in Cyber Technology and our dedication to a workforce that will support the regional economy.

Appendix A: ATMAE Accreditation Letter



Board of Accreditation December 11, 2015

Chairman
 Dr. Rick Bateman
 Bossier Parish Community College
 6220 East Texas St.
 Bossier City, LA 71111

Directors
 Mr. John M. Aubrey
 Marshall State University

Mr. Kirk Barnes
 Ivy Tech Community College

Mr. Michael Blodson
 Indiana State University

Dear Dr. Bateman:

The ATMAE Board of Accreditation conducted hearings on Wednesday, November 11, 2015 at which your request for programmatic accreditation was among those considered. We are pleased to notify you that the following program/footprints are granted ATMAE accreditation with a report due in two years:

Dr. Charles Crider
 University of Arkansas-Ft. Smith

Mr. Bob Danna
 Walters State Community College

Dr. Earl Ford
 Public Representative

Mr. John Haughey
 Iowa State University

Mr. James Matheson
 University of Texas

Dr. Van T. Mosley, CSTM
 United States Army

Mr. Glenn Rietig
 Cowas Community College

Dr. Mervin Sarrett, CSTM
 Purdue University

Mr. Charles Swenson
 Walters State Community College

Dr. James Sutton
 Oakland University

Dr. Ahmad Targui, CSTM
 Middle Tennessee State University

Administration

Mrs. Kelly Schild
 Director of Accreditation

- Associate of Applied Science – Computer Information Systems
- Associate of Applied Science – Construction Technology and Management
- Associate of Applied Science – Cyber Technology - Network Security
- Associate of Applied Science – Cyber Technology - Programmer Analyst
- Associate of Applied Science – Industrial Technology - Automation & Controls
- Associate of Applied Science – Industrial Technology – Engineering Graphics
- Associate of Applied Science – Oil and Gas Production Technology

The two-year report will be due September 17, 2017, forty-five (45) days before the scheduled date of the 2017 hearings which is Wednesday, November 1, 2017. Pending acceptance of the report, all of these programs may be brought into alignment through November 2020. Because the College was granted an extension for reaccreditation from 2014 to 2015, the current accreditation period will be for five years instead of six.

We will contact you when it is time to submit the progress report and what the report should address. Meanwhile, it is the responsibility of each institution to inform ATMAE of material changes to accredited programs and of changes to the contact information for those handling ATMAE accreditation issues.

We hope that the accrediting services provided by ATMAE have been beneficial to your program and we look forward to your organization's participation in the development, implementation and evaluation of the appropriate standards for our profession.

Regards,

Kelly Schild
 Director of Accreditation

ATMAE Accreditation

275 North York Street, Suite 401 - Elmhurst, IL 60126-2752
 Phone 630.433.4514 - Fax 630.563.9181 - Email: Kelly@atmae.org - Visit: www.atmae.org
 Recognized by the Council for Higher Education Accreditation (CHEA)

Appendix B: Letters of Support



NORTH LOUISIANA ECONOMIC PARTNERSHIP

November 11, 2016

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

Dear Dr. Bateman,

The North Louisiana Economic Partnership (NLEP) strongly supports Bossier Parish Community College (BPCC) being designated a Center for Workforce Excellence in Cyber Technology. We hold all our higher education partners in high esteem and appreciate their responsiveness to the needs of our regional economy, however BPCC has been a shining light in this regard.

BPCC has demonstrated proactive support of the IT corridor that has been forming in North Louisiana since 2009, with the birth of the Cyber Innovation Center (CIC) to create a balancing anchor with the headquarters of CenturyLink in Monroe. Since that time, we have watched BPCC work closely with the CIC leadership as well as existing IT companies and other higher education institutions to develop a cyber technology curriculum and concentrations that are becoming a major marketing tool to attract technology companies. The greatest demonstration of this was the decision of CSRA to locate 1,100 IT jobs in Bossier City, 800 of which are adjacent to the BPCC campus. Additionally, with the growth in stature of Barksdale Air Force Base as the home to Global Strike Command and the need to equip our military with cyber warriors to defend US companies and all levels of government from cyber attacks, we believe BPCC is ideally suited to be a Center for Workforce Excellence in Cyber Technology.

The two-plus-two arrangements with Louisiana Tech University and Northwestern State University are creating important opportunities for our residents to improve their competitiveness for jobs and earning potential. And it is worth repeating, the cooperation exhibited by these higher education institutions in taking the extra steps to align their curriculum makes a deep impression on those looking at our region for investment of capital and quality jobs.

BPCC has been outstanding at developing industry advisory boards to inform their curricula decisions in all programs but particularly the Cyber Technology program. Our regional business community regards BPCC as a quality partner in talent development, and because of that they have responded by developing internships for BPCC's cyber technology students to gain real world workplace experience.

ECONOMIC DEVELOPMENT • WORKFORCE • ADVOCACY

Regions Tower, 333 Texas Street, Suite 411 • Shreveport, LA 71101 • 318.677.2536 | Premier Plaza, 1900 North 18th Street, Suite 501 • Monroe, LA 71201 • 318.387.0787

www.nlep.org



4300 Youree Dr. Bldg1
 Shreveport, La. 71105
 (877)221-2055

TO-Whom It May Concern
 Bossier Parish Community College
 6220 E Texas Street
 Bossier City, La 71111

To Whom It May Concern:

10/25/2016

Electsolve has been able to enjoy a productive relationship BPCC in the last few years. We have been grateful to enjoy opportunities to participate in open career fairs, TEM career fairs, round table discussions, and other open discussions about computer science and programs related to our industry at BPCC. It has been refreshing to work with an institution that recognizes the important relationship between both the educational demands and industry demands that are often ever changing in a field like ours. They have made an effort to have real discussions with us about what we need from candidates, and to get our insight on programs, and a real understanding of our business model.

This growing relationship has allowed us to confidently start intern placement again this year. We feel BPCC has created a relationship that is mutually beneficial to both us as a business and for the right candidates to apply and grow their skill set. Our current intern is working with our database team in house using Visual Studio and a micro service console application to replace our current process for our data replication between uCentra and CentraVU, our flagship products. This will allow us to take larger amounts of data in real time. UCentra is an operational data management system (ODMS), a vendor-neutral next generation meter data management system (MDMS) providing integration of AMI/AMR, CIS, SCADA, OMS, EA/GIS, demand response, and distribution automation management systems. It provides a 360-degree view of operational data in conjunction with central management, analysis, and reporting.

With over 16 years at the top of our industry, we feel Electsolve has a lot to offer intern candidates and new graduates. Electsolve started in 1999 and has expanded to a staff specializing in areas of CIS, SCADA, generation control, data analytics, and telecom focusing on data integration and data management software solutions and offering IT solutions to our customers as well. Electsolve has offices in Louisiana and Texas and offers services and solutions to electric, water, and gas utilities through the United States and globally. More can be found at www.Electsolve.com.

We've been fortunate to see the unprecedented growth at BPCC, especially in the TEM programs. We're looking forward to seeing BPCC do more and getting to be a part of that and seeing the positive impact it has on both the local community and our industry.

Sincerely

Ceson V. Ponder
Sr. Partner Relations
ElectSolve Technology Solutions and Services, Inc.

TO-Whom It May Concern
Bossier Parish Community College
6220 E Texas Street
Bossier City, La 71111

To Whom It May Concern:

Christus Health has been able to enjoy a productive relationship BPCC in the last few years. We have been grateful to enjoy opportunities to participate in open career fairs, TEM career fairs, round table discussions, and other open discussions about computer science and programs related to our industry at BPCC. It has been refreshing to work with an institution that recognizes the important relationship between both the educational demands and industry demands that are often ever changing in a field like ours. They have made an effort to have real discussions with us about what we need from candidates, and to get our insight on programs, and a real understanding of our business model.

This growing relationship has allowed us to confidently start intern placement. We feel BPCC has created a relationship that is mutually beneficial to both us as a business and for the right candidates to apply and grow their skill set.

We've been fortunate to see the unprecedented growth at BPCC, especially in the TEM programs. We're looking forward to seeing BPCC do more and getting to be a part of that and seeing the positive impact it has on both the local community and our industry.

Sincerely,

Samuel Robison



August 4th, 2016

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 the Louisiana Community & Technical College System for its proposal to the U.S. Department of Labor's America's Promise Job Driven grant program. It is our understanding that this initiative will provide IT students with enhanced learning opportunities which will have the potential to accelerate their academic track and overall learning.


In 2014, Bossier Parish Community College and the state of Louisiana established a four-year formal cooperative endeavor agreement in which CSRA is identified as the corporate partner. This CEA aims to increase the number of IT graduates, expand recruitment efforts, expand industry-based certification offerings, enhance course curricula, create articulation agreement with four-year institutions, build faculty capacity, and ultimately increase the number of students who intern and enter employment in the IT sector. The agreement between the state and BPCC will provide \$1,000,000 in leveraged resources coincident with the four-year span of the America's Promise grant.

The America's Promise initiative will provide BPCC students with additional resources in the classroom and more hands-on learning opportunities that are not otherwise budgeted for in our current partnership agreement. The complementary integration of the two programs is important and highly valuable because of the potential it will have for an even greater impact on the workforce in North Louisiana. With the addition of the America's Promise grant, students will be exposed to specialized IT equipment used in the industry today and become more familiar with various IT operations prior to interning or working in the field. This knowledge, the learned skillssets, and the hands-on experience will give these graduates a tangible advantage as they enter the IT workforce. With these added benefits in hand, BPCC students will be able to "hit the ground running" with their employers, improving the average time to meaningful productivity, and reducing the traditional "spit-up" time which new employees acclimating to new equipment often experience.

BPCC's proposal has the potential to further strengthen our partnership and ultimately increase the skill-level of the next generation of IT workers. As a part of BPCC's America's Promise proposal, CSRA will lend expertise to identify appropriate equipment to enhance hands-on learning. CSRA will also continue to be an active member on BPCC's academic advisory board and provide input on industry and company needs, and will continue to alert BPCC to advances in technologies which may be beneficial to our students.

We are committed to the success of Bossier Parish Community College and are delighted to provide this letter of support. Please do not hesitate to contact me if there are any questions.

Sincerely,


 Ashley C. Rodwell
 CSRA Director of Operations, Bossier City, LA



August 5th, 2016

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

Dear Dr. Bateman:

CyberReef Solutions is writing this letter of support for Bossier Parish Community College and its application for the America's Promise grant program through the Department of Labor. As you may know, CyberReef chose to relocate its company last year to the Shreveport/Bossier area because of the abundant opportunity for growth and to collaborate with industry partners and leading institutions such as Bossier Parish Community College. BPCC has quickly become a close partner to CyberReef by establishing a formal MOU together to allow BPCC cyber technology students to intern with our company and learn from our leading experts in their field. We view this internship program as a means to help create a pipeline of talent from BPCC's cyber technology program into CyberReef.

Our partnership has continued to grow and we see BPCC's America's Promise proposal as a way to further strengthen that partnership. We understand that this grant opportunity will allow BPCC's cyber technology students more opportunities to go beyond the traditional academic learning in the classroom and be truly immersed in more hands-on learning experiences. We feel strongly that this initiative will be instrumental toward the progression of an intern's learning curve.

As a part of BPCC's *America's Promise* proposal, CyberReef will continue to engage with BPCC faculty, provide expertise to update course content, and give guidance on equipment purchases for hands-on learning.

We are committed to Bossier Parish Community College and we are look forward to partnering on this endeavor to help take BPCC's cyber technology program to an even higher level.

Sincerely,

Hilton Nicholson

Hilton Nicholson
 Chief Executive Officer
 CyberReef Solutions

8 August 2016

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

Dr. Bateman:

This letter is written in support of the America's Promise grant proposal submitted by Bossier Parish Community College (BPCC) and its consortium of Louisiana community colleges.

xentientLABS is an industry partner of the TechBy20 coalition of companies, dedicated towards supporting the development of a vibrant technology ecosystem along the I-20 corridor of North Louisiana. We are also a sponsor member of the Arklatex Chapter of the Armed Forces Communications and Electronics Association (AFCEA), which is a premier information technology (IT), communications, and electronics alliance for professionals in government, industry and academia.

We advocate any opportunity that assembles resources and talents to improve the technology ecosystem in North Louisiana. BPCC's proposal aligns perfectly with our intention to bring together industry partners, IT companies, and other institutions, by creating a fully comprehensive plan that can contribute to the development of the technology ecosystem in this area.

Over the last two years, *xentientLABS* and BPCC have become significant collaborative partners, and this partnership has led to the development of a robust internship program. This program provides a framework and feedback necessary for critical student learning, and has given BPCC cyber technology students the opportunity to gain invaluable hands-on experience by designing, developing, and deploying custom software. In addition to the internship program, *xentientLABS* serves on BPCC's Cyber Technology Advisory Board, providing guidance on overall program and course design. We also participate in student workshops, career fairs, advisory boards, and classroom presentations.

It is with great enthusiasm that we submit this letter of support, and we look forward to building upon our already thriving partnership.

Sincerely,

Cesar A. Marrero
President, CEO
xentientLABS LLC

xentientLABS LLC 
4310 Eastgate Blvd. #5188 Bossier City, LA 71115



August 9th, 2016

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

Dear Dr. Bateman:

Enterprise Computing Services, LLC (ECS) offers Bossier Parish Community College and its consortium of other community colleges its full support for its *America's Promise* proposal to the U.S. Department of Labor. The *America's Promise* program will not only help to benefit the next generation pursuing IT careers but it will also further strengthen partnerships with industry partners, such as ECS. It is our understanding that this program has the potential to impact more than 1,000 participants over a four-year period and as a result will help to provide more enhanced learning opportunities for IT students.

ECS has been committed to the success of BPCC's cyber technology program. Over the years, ECS has attend multiple career fairs, special student informational events, participated in IT round tables hosted by BPCC, provided insight on industry trends, given guidance on curricular changes, and led students on tours of our facilities. In addition, we also have former BPCC students employed at ECS.

This initiative will allow BPCC to take the next step in offering more engaging and hands-on experiences that will expedite the learning process when a student enters the workforce. As a part of BPCC's *America's Promise* proposal, ECS will lend expertise in the development of course content as well as on equipment purchases to incorporate more hands-on learning. ECS will also assist with program evaluation regarding program effectiveness and outcomes.

We are excited to offer our support and look forward to working with BPCC to bring these impactful changes to the classroom.

Sincerely,

A handwritten signature in blue ink, appearing to read 'Jim Malsch', is written over a light blue horizontal line.

Jim Malsch
 CEO
 Enterprise Computing Services, LLC

Appendix C: Program Outcome Table

AAS in Cyber Technology Network Security Concentration

For Academic Year 2016-2017 with new approved Program Learning Outcomes

Outcomes	Assessment Method (AM) and Targets (T)	Results	Actions Based on Analysis of Results	Improvements Based on Analysis of Results
<p>Program Learning Outcome A: Read and interpret technical literature and convey technical information through verbal and written communication.</p>	<p>AM: CIT 299 Presentation T: 70% AM: Program Exit Survey T: At least 90% of students score the item "Good" or better; at least 50% of students score item "Very Good" or better</p>			
<p>Program Learning Outcome B: Analyze critically and solve real-world security issues understanding the legal and ethical concerns.</p>	<p>AM: CIT 299 T: Pass AM: Program Exit Survey T: At least 90% of students score the item "Good" or better; at least 50% of students score item "Very Good" or better</p>			
<p>Program Learning Outcome C: Demonstrate security awareness in order to react to new developments in their field</p>	<p>AM: CIT 279 Lab 7 T: 70% AM: Program Exit Survey T: At least 90% of students score the item "Good" or better; at least 50% of students score item "Very Good" or better</p>			
<p>Program Learning Outcome D: Utilize critical thinking skills to collect, analyze, and interpret technical data collected through investigation and experimentation.</p>	<p>AM: CIT 299 T: 70% AM: Program Exit Survey T: At least 90% of students score the</p>			

Outcomes	Assessment Method (AM) and Targets (T)	Results	Actions Based on Analysis of Results	Improvements Based on Analysis of Results
	item "Good" or better; at least 50% of students score item "Very Good" or better			
Program Learning Outcome E: Implement computer networks and firewalls both physically and logically	AM: CIT 299 T: 70% AM: Program Exit Survey T: At least 90% of students score the item "Good" or better; at least 50% of students score item "Very Good" or better			

AAS in Cyber Technology Programmer Analyst Concentration

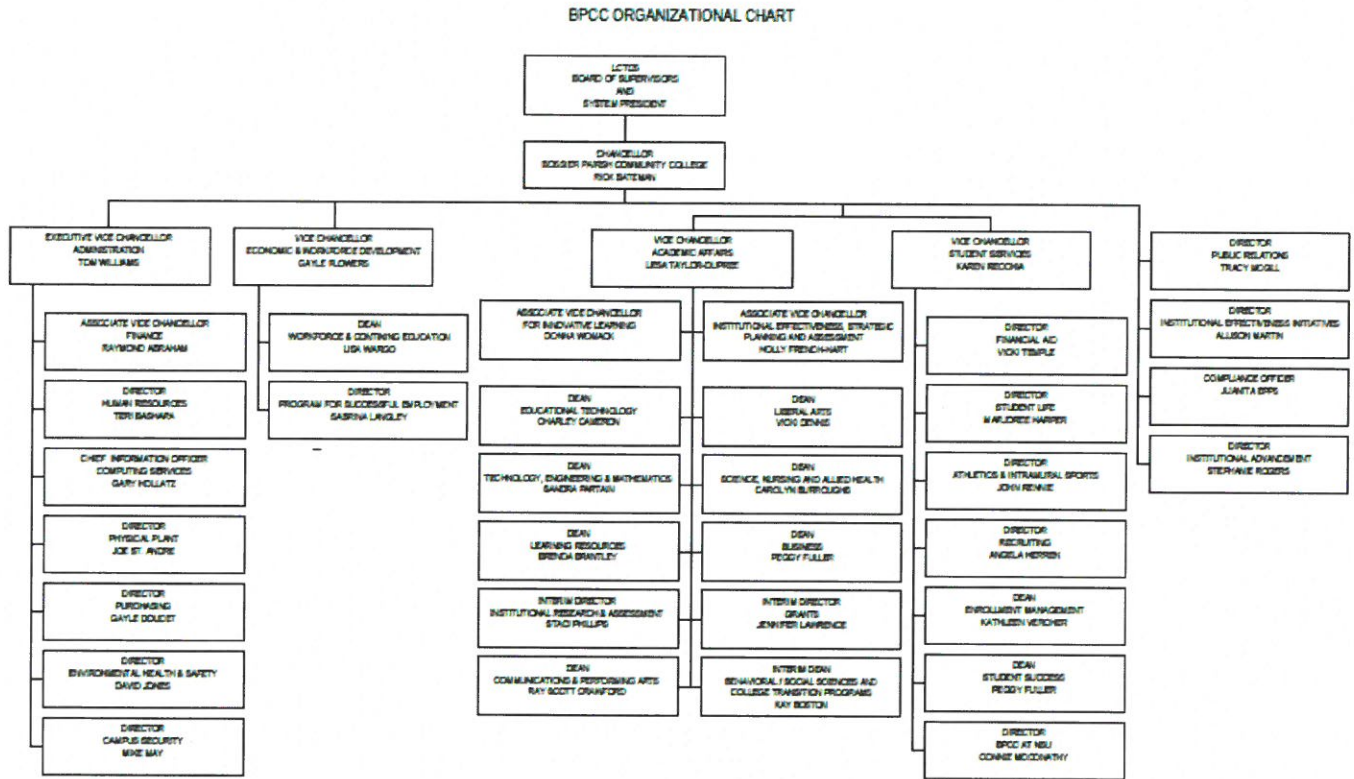
For Academic Year 2016-2017 with new approved Program Learning Outcomes

Outcomes	Assessment Method (AM) and Targets (T)	Results	Actions Based on Analysis of Results	Improvements Based on Analysis of Results
Program Learning Outcome A: Read critically, interpret, and document technical information accurately.	AM: Class programming projects T: Students score 70% or higher on programming projects AM: Program Exit surveys T: At least 90% of students score the item "Good" or better; at least 50% of students score item "Very Good" or better			
Program Learning Outcome B: Analyze critically and solve real-world end-user problems.	AM: Class programming projects T: Students score 70%			

Outcomes	Assessment Method (AM) and Targets (T)	Results	Actions Based on Analysis of Results	Improvements Based on Analysis of Results
	or higher on programming projects AM: Program Exit surveys T: At least 90% of students score the item "Good" or better; at least 50% of students score item "Very Good" or better			
Program Learning Outcome C: Implement programs in multiple computer languages.	AM: Class programming projects T: Students score 70% or higher on programming projects AM: Program Exit surveys T: At least 90% of students score the item "Good" or better; at least 50% of students score item "Very Good" or better			
Program Learning Outcome D: Debug and test software.	AM: Class programming projects T: Students score 70% or higher on programming projects AM: Program Exit surveys T: At least 90% of students score the item "Good" or better; at least 50% of students score item "Very Good" or better			
Program Learning Outcome E: Utilize critical thinking skills to collect, Analyze, and interpret technical data.	AM: Class programming projects T: Students score 70% or higher on			

Outcomes	Assessment Method (AM) and Targets (T)	Results	Actions Based on Analysis of Results	Improvements Based on Analysis of Results
	programming projects AM: Program Exit surveys T: At least 90% of students score the item "Good" or better; at least 50% of students score item "Very Good" or better			
Program Learning Outcome F: Describe application web server and Programming as well as the ability to program websites and computer applications.	AM: Class programming projects T: Students score 70% or higher on programming projects AM: Program Exit surveys T: At least 90% of students score the item "Good" or better; at least 50% of students score item "Very Good" or better			

Appendix D: BPCC Organizational Chart



Appendix E: Program Health Index Report



LOUISIANA'S COMMUNITY & TECHNICAL COLLEGE SYSTEM

Program Health Index Report: Non-Transfer

COLLEGE	Bossier Parish Community College
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PROGRAM CIP CODE:	11.1099, 11.0299, 11.1001, 11.1002, 11.1003, 11.1004, 11.0101, 11.0103, 11.0901, 11.9999
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PROGRAM TITLE:	Cyber Technology
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LIST CAMPUSES OFFERING PROGRAM

Main

PROGRAM STAR RATING

5 Stars
 4 Stars
 3 Stars
 2 Stars
 1 Star

AWARDS OFFERED:

Award Level(s):	
<input checked="" type="checkbox"/> Associate of Applied Science (A.A.S.) <input type="checkbox"/> Associate of Science (A.S.) <input type="checkbox"/> Associate of Arts (A.A.) <input type="checkbox"/> Other Associate Degree Name: <input type="text"/>	<input type="checkbox"/> Technical Diploma (T.D.) <input checked="" type="checkbox"/> Technical Competency Area (T.C.A.) <input checked="" type="checkbox"/> Certificate of Technical Studies (C.T.S.) <input type="checkbox"/> Certificate of Applied Science (C.A.S.) <input type="checkbox"/> Certificate of General Studies (C.G.S.)

GRADUATES BY AWARD TYPE:

	Associate	Certificate	Diploma	TCA
AY: 15-16	30	17		102
AY: 14-15	26	9		38
AY: 13-14	34	23		8

AVERAGE MONTHS TO COMPLETION BY AWARD TYPE:

Associate	Certificate	Diploma	TCA
37.73	19.62		37

AVERAGE SALARY OF RECENT GRADUATES:	\$66,552
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ENROLLMENT:	
AY: 15-16	516
AY: 14-15	554
AY: 13-14	446

NUMBER OF PARTNERSHIPS WITH INDUSTRY	28
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SHORT-TERM ANNUAL DEMAND FOR GRADUATES:	170
LONG-TERM ANNUAL DEMAND FOR GRADUATES:	160

DESCRIBE ASSETS / FOUNDATION SUPPORT SECURED FOR PROGRAM INITIATIVES:	
Dedicated Foundation Scholarships - \$40,000; Grant funding: \$2,036,058.83	

TOTAL VALUE OF DESCRIBED ASSETS / FOUNDATIONAL SUPPORT:	\$2,076,058.83
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AVERAGE TOTAL COST OF ATTENDANCE FOR STUDENTS IN PROGRAM:	\$10,545.00
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COST TO COLLEGE TO OFFER PROGRAM (MOST RECENT FY):	\$713,811.69
TOTAL REVENUE GENERATED FROM PROGRAM (MOST RECENT FY):	\$1,324,286.43
REVENUE MINUS COST (NET REVENUE):	\$610,474.74

CHANCELLOR / DIRECTOR RECOMMENDATION ON PROGRAM:	

SIGNATURES:

College Chief Executive Officer

Date

Appendix F: Grant Cyber Funding Through 2016

Grant Cyber Funding through 2016

Line Number	Object Code Category	RR FY16 Budget	2015 BOR 2-year Scholarship Cyber	2015 BOR 2-year Endowed Scholarship Computer Information Systems	2015-2025 Cooperative Endeavour Agreement with LED and CSRA	2012-2016 TAAACCT Round 2 Grant from USDOL	2014-2016 CSEC Grant from NSF	2012-2015 WebWorks with LA Tech from NSF	2016-2017 JPMorgan Chase Grant
1	Employee Salaries	\$ 38,667.00			\$ 1,774,350.00	\$ 1,476,646.00		\$ 14,571.00	\$ -
2	Related Employee Benefits	\$ 9,000.00			\$ 513,000.00	\$ 507,994.00		\$ 4,311.00	\$ -
3	Professional Services or Contracted Services	\$ 25,000.00			\$ 40,000.00	\$ 3,874,901.00	\$ 8,867.00		\$ -
4	Operating Services	\$ -							\$ -
5	Equipment or Property Acquisitions	\$ 216,666.00							\$ -
6	Supplies	\$ 30,333.00			\$ 50,000.00	\$ 209,194.00	\$ 17,000.00		\$ -
7	Travel	\$ 12,000.00			\$ -	\$ 252,060.00	\$ 27,100.00	\$ 1,000.00	\$ -
8	Outreach	\$ -							\$ -
9	Administration	\$ -			\$ -	\$ 540,322.00	\$ -	\$ 6,302.00	\$ -
10	Any Other Charges (Explained in Budget Narrative)	\$ -			\$ 122,650.00	\$ 754,000.00	\$ -	\$ -	\$ -
11	Scholarships	\$ -	\$ 40,000.00	\$ 40,000.00	\$ -	\$ -	\$ -	\$ -	\$ 40,000.00
12	TOTAL	\$ 331,666.00	\$ 40,000.00	\$ 40,000.00	\$ 2,500,000.00	\$ 7,615,117.00	\$ 52,967.00	\$ 26,184.00	\$ 40,000.00
	GRAND TOTAL	\$ 10,645,934.00							
	Date funded:		Nov-15	Nov-15	Jan-14	May-12	Aug-13	Aug-12	Oct-16
	Description of award:		Scholarships for students with declared cyber major	Scholarships for students with declared CIS major	CEA to increase student passage rates of academic cyber courses and IBCs	USDOL grant to rapidly train students in cyber fields incorporating remedial education with in technical courses.	Professional development training for faculty in cyber fields	Worked as a subcontractor for LA Tech --used WebWorks software in Engineering classes to test the software	Private foundation grant to fund the cost of IBCs and fund internships or externships for cyber students
	# of Participants:		TBD	TBD	208	2156		TBD	TBD
	# of Completers:		TBD	TBD	208	568		TBD	TBD
	# of IBCs				91	1633	0		TBD

Appendix G: Information Assurance Reciprocity and Partnership



TOM L. ROBERTS, PH.D.
 PROFESSOR OF COMPUTER INFORMATION SYSTEMS
 CLIFFORD RAY KING ENDOWED PROFESSOR
 DIRECTOR, CENTER FOR INFORMATION ASSURANCE
 DEPARTMENT OF MANAGEMENT AND INFORMATION SYSTEMS

November 16, 2011

Chris Rondeau
 Program Director
 Division of Technology Engineering & Mathematics
 Bossier Parish Community College
 6220 East Texas Street, G-120
 Bossier City, LA 71111

RE: Information Assurance Reciprocity and Partnership

Dear Chris,

This letter acknowledges an Information Assurance Partnership Agreement between Louisiana Tech University and Bossier Parish Community College (BPCC). This agreement includes course sharing, information sharing, faculty sharing (advisory boards), reciprocity of course credits where possible given accrediting agencies and the State of Louisiana Reciprocity Agreement. The Louisiana Tech faculty is excited to work with the faculty at BPCC and appreciate the willingness of the BPCC faculty to work with us to further information assurance education in North Louisiana.

We would be amiss to not acknowledge the relationship of both institutions with the Cyber Innovation Center (CIC) in Bossier City. Both institutions have significant partnerships with the CIC which is working diligently to increase information assurance awareness at all levels of education in North Louisiana.

In closing, we are very pleased to be collaborating with Bossier Parish Community College to provide quality education to our respective student bodies and exchange capabilities for courses within our curricula. Please feel free to contact me if you have any questions concerning this partnership agreement.

Sincerely,

Tom L. Roberts, Ph.D.

A MEMBER OF THE UNIVERSITY OF LOUISIANA SYSTEM

P. O. Box 10318 • Ruston, LA 71272 • TELEPHONE (318) 257-3514 TROBERTS@LATECH.EDU
 A BOSSIER PARISH COMMUNITY UNIVERSITY