

# Camden County College

## Office of Information Technology (OIT)

### Technology Plan

#### 2012-2017



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## **Executive Overview**

### **College Mission**

Camden County College, a comprehensive public community college in New Jersey, provides accessible and affordable education including associate degree programs, occupational certificates programs, noncredit courses and customized job training. The College welcomes all who can benefit and provides the support services students need to transfer for further studies, prepare for a career and continue their education. The College responds to the changing needs of its community and students and continuously improves its programs and services to support the economic development of Camden County and the personal development of its goal.

### **Office of Information Technology (OIT) Mission and Purpose**

Camden County College Office of Information Technology (OIT) Department provides comprehensive technological resources to the students, faculty and staff of the college. OIT continually provides a stable and reliable network infrastructure, applications and technical resources for quality and timely service to its users.

The purpose of this plan is to provide the framework from a technology-based perspective for meeting the college mission “to provide dynamic, student-centered, comprehensive and accessible educational opportunities that address the diverse needs of the community”. Each department within OIT has a mission to support the academic and administrative needs and goals of the College.

### **Camden County College OIT Mission**

#### **Administrative Services**

The mission of the Administrative Services within the Office of Information Technology is to provide leadership and technical assistance in the design, programming, consultation, system design, new applications review, security and maintenance of the College's enterprise resource planning systems. These systems include Datatel Colleague (Student Information System), Web Advisor (the web interface to the student information system), SunGard One Solution (Financials, Human Resources, and Payroll system), Onbase Document Imaging, Operation Data Store Reports System and Web-Advisor.

### **User Services**

The mission of the User Services area within the Office of Information Technology is to provide operational support, development and maintenance for the academic and administrative computing environments at the College. This support is provided to faculty, staff and students and is centralized through the Office of Information Technology Help Desk. Services include technical support and services for desktop computers, tablets, printers, mobile devices and associated peripheral equipment, application software, email, computer classrooms, open access labs, and technology education.

### **Network Services**

The mission of Network Services within the Office of Information Technology is to provide the development of Camden County's network infrastructure and network applications. These services include the installation, management and operational support of the College's local and wide area networks, wireless networks, Internet connectivity, network security, network servers, email systems and virus protection.

### **Telecommunications Services**

The mission of Telecommunications Services within the Office of Information Technology is to provide voice communication services to the College community. This includes the support, maintenance and development of the telephone, conferencing and voice mail system and equipment, management of the physical infrastructure that supports voice services, and the College's relationship with our local and long distance communications providers.

### **Instructional Support Department (ISD) - (effective FY15, ISD is no longer a part of OIT)**

The mission of the Instructional Support Department within the Office of Information Technology is to provide faculty instruction, equipment maintenance and repair and operation of all audio and visual equipment on all three Camden County College campuses. These services include support for both academic and non-academic events and meetings. Technical oversight of the college radio station, WDBK, and the Dennis Flyer Theater are included in the scope of operations.

## OIT Technology Plan Overview

The goals within the OIT Technology Plan are linked to the Camden County College Strategic Plan 2012, Middle States Commission on Higher Education and the Mission Statement of OIT to create a comprehensive, accessible and affordable college experience for students. The goals for OIT are to provide excellent teaching and learning environments, reliable network connectivity, a complete disaster recovery plan and state of the art applications and technologies that creates a competitive and engaging environment to support students, faculty and staff. These goals represent the technology plan outlined by OIT to create a desirable and affordable institution of choice for students of all ages seeking a college degree.

The goals and objectives of OIT are achieved through the various departments, including User Services, and Administrative Systems. Each department focuses on strategic technical long term and short term goals to improve the technological environment for students, faculty and the college community. The goals and objectives incorporated in this document begin with the current fiscal year July 1, 2012 to June 30, 2013 through fiscal year July 1, 2012 to June 30, 2017.

### **Goals: July 1, 2012 - June 30, 2013**

#### **Goal 1 - Increase Data Accessibility and Efficiency to the College Community with a Reliable and Secure Infrastructure**

OIT will implement Self-Service Technologies, a Web Portal, applications for Droid and iPhone and Document Imaging devices to increase data accessibility to all users. OIT will also upgrade the Campus Network, and Voice and Messaging systems to provide a secure and reliable environment that promotes academic and professional success.

**Business Justification:** Provide quick, secure, convenient and efficient data accessibility to college data from multiple devices and locations enhancing the users overall productivity, academic and administrative experience.

**Constituents:** Students, Staff, Administrators, OIT, Faculty and Potential Students

#### **Goal 2 - Implement Leading Edge Technologies**

OIT will implement leading edge technologies to create a competitive institution and improve the overall academic and administrative experience within the college community.

**Business Justification:** Implement State-of-the-Art technology within classrooms, lecture facilities and administrative areas to stay ahead of the competition by promoting an academically stimulating, competitive and supportive environment.

**Constituents:** Students, Staff, Administrators, Faculty and Potential Students

**Goal 3 - Provide Classroom and Operational Technical Support**

OIT will continue to provide campus wide support for all technical aspects of the college.

**Business Justification:** As new classrooms are created or modified, OIT will design, implement, install and support technical software and hardware to help the college continue a high academic and administrative standard.

**Constituents:** Students, Faculty, Staff and Administrators

**Goal 4 - Improve OIT Planning Processes**

OIT will create a Master OIT Project Plan to organize and schedule projects for the current a five (5) year period.

**Business Justification:** Create a Master OIT Project Plan to help OIT manage growth within the department and college as well as to help other departments understand OIT obligations, resources, priorities and availability.

**Constituents:** President's Staff, OIT CIO, OIT Managers

**Goal 5- Development of Personnel**

OIT will develop a clearly defined comprehensive career training path for all employees and disciplines encompassed within OIT.

**Business Justification:** Strategically define technical career training paths to help standardize trouble shooting, implementation procedures, development and other important components of learning and staying current within OIT.

**Constituents:** Managers, OIT Staff, Administrative Staff and Help Desk Personnel

**Goal 6 - Develop a Risk Mitigation Strategy**

OIT will enhance their current Technology Disaster Recovery Plan and execute a Security Audit to identify and analyze different types of emergencies and responses required by OIT. They will also test the plan to ensure that the business resiliency remains intact.

**Business Justification:** An integral component of data accessibility is the ability to readily duplicate a full system recovery, provide business resiliency in case of a disaster and save costs associated with loss data. OIT will implement a cohesive disaster recovery plan and perform mock tests to ensure the College continues to operate in the event of a disaster. This is a multiple year goal and the plan will cover the ability to retain and recover years of data needed for each department.

**Constituents:** Students, OIT, Administrative Staff and Administrators.

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OIT Technology Goals and Projects	Year Completed 20XX				
	12-13	13-14	14-15	15-16	16-17
	1	2	3	4	5
<b>Goal 1: Increase Data Accessibility and Efficiency to the College Community with a Reliable and Secure Infrastructure</b>					
Restructure and Redesign College Network Configuration	√	√	√		
College Campus Web Portal	√	√	√	√	
Self-Service Technology - Kiosks	√	√	√	√	√
Document Imaging	√	√	√	√	√
Fixed Assets Inventory Control	√	√			
Improve and Secure Virtual Private Network (VPN )	√				
Self-Service Help-Desk		√			
Implement Mobile Applications for Datatel		√	√		
<b>Goal 2: Implement Leading Edge Technologies</b>					
Investigate New Technologies to Integrate with College Community	√	√	√	√	√
Datatel SQL Conversion				√	√
Microsoft Exchange Email 2010	√				
SharePoint 2010 implementation and Integration	√				
Server Virtualization	√				
Increase Wireless Footprint	√	√	√	√	
Virtual Desktop Infrastructure (VDI)				√	
Implement Digital Signage Project				√	√
Introduce Tablet Classroom				√	
Introduce Hosted Cloud Solutions			√	√	√
<b>Goal 3: Provide Classroom and Operational Technical Support</b>					
Design and Implement New Classroom Technology	√	√	√	√	√
Provide Technical Classroom Support	√	√	√	√	√
Provide Software Management for College Community	√	√	√	√	√
Implement MS Windows Live™	√				
PC Life Cycle Management	√	√	√	√	√
Provide Technical Event Planning	√	√	√		
Update Dimmer Lighting System	√	√			
Implement Proactive Help Desk Walk-Through Support		√	√	√	√
<b>Goal 4: Improve OIT Planning Processes</b>					

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Campus Wide OIT Governance	√	√	√	√	√
Annual Review of OIT Contracts	√	√	√	√	√
Student information System (SIS) Planning Session	√	√	√	√	√
Incorporate a Process Management Discipline		√	√	√	√
Campus Wide Software and Equipment Purchasing Policy	√	√	√	√	√
<b>Goal 5: Development of Personnel</b>					
Develop and Maintain an Overall OIT Training Plan			√	√	√
Technical Training for Students, Faculty and Staff	√	√	√	√	√
<b>Goal 6: Develop a Risk Mitigation Strategy</b>					
Update Current Disaster Recovery and Business Continuity Plans	√	√	√	√	√
Test Current Disaster Recovery and Business Continuity Plans	√	√	√	√	√
Execute Security Audit	√	√	√	√	√



APPENDIX A

	Year 1			
	2012-2013	Estimated Annual Cost	Funding Source: Capital (C) or Operating (O) Budget	Results
	<p>The OIT Technology Plan identifies the goals and objectives of the OIT department as it incorporates the larger vision of the college. It is a plan that identifies the roadmap the college must travel to achieve their goals by providing a view of the current technological environment as well as the future direction of technology at the college.</p> <p>In addition, this plan analyzes the current state of the technological environment and identifies projects necessary to meet the technological goals of the college. Each goal within the plan has a purpose and identifies the benefit it provides the college in enhancing the classroom experience, increasing efficiency, accessibility and mobility for our students, staff and faculty.</p> <p>In our ever changing world of technology, changes create challenges but our purpose in creating this plan is for growth, reliability, security and stability within technologies that support the college community. As we continue to support existing and implement new technologies, our plan identifies how OIT also provides committed service, user satisfaction and a competitive environment for the college community.</p>			
<b>Goal1</b>	<b>Increase Data Accessibility and Efficiency to the College Community with a Reliable and Secure Infrastructure</b>			
	<p><b>Restructure and Redesign College Network Configuration</b></p> <p>OIT will redesign the current Network to improve intra and inter campus communications ensuring that all campuses have multiple internet connections and ample bandwidth for administrators, students and faculty to perform daily operations</p>	<b>\$120,000</b>	<b>O</b>	The College awarded Comcast as the Service Provider of Choice to help with the reduction of costs and increased communication routes

	<p>with a high capacity and quick response time.</p> <p><b>Business Justification:</b></p> <p>The current network configuration converges into one central point of transport causing a major bottleneck during peak performance hours. To help eliminate this issue, OIT will reconfigure the college network to increase capacity and redesign the network to have multiple routes for communication traffic. The new design of the network will ensure that each campus has multiple ways to route the communication and data intensive traffic to and from campuses with minimal effort increasing employee, student and faculty productivity</p>			<p>throughout campuses. The new design increases efficiency by providing ways to route college communication and eliminating single points of failure.</p>
	<p><b>College Campus Web Portal</b></p> <p>Single location, Single Sign-On Access for college resources.</p> <p><b>Business Justification:</b></p> <p>The Single Sign-On Access provides an easier way to manage the users experience, it consolidates all (or as many as the college desire) web login services, decoupling the authentication for each independent applications, and adding one login for multiple applications. The login is linked to the identification and security of the user. Adding this capability will save the users time and help with our goal to make the user experience more efficient and 'user friendly'.</p>	<p><b>\$29,500</b></p>	<p><b>O</b></p>	<p>Implemented EAI Campus MyPortal website to provide students with a single sign on access. MyPortal for faculty and staff will occur in the next phase.</p> <p>Currently as of January 2015, approximately, 3,139 students, which is 28% of the student population uses the Portal.</p>
	<p><b>Self-Service Technology</b></p> <p>Increase efficiency and accessibility by deploying of self-service technology throughout the college campuses.</p> <p><b>Business Justification:</b></p> <p><b>Kiosks</b></p> <p>Self-service technology helps the college achieve its goal to increase efficiency,</p>	<p><b>\$18,000</b></p>	<p><b>C</b></p>	<p>Implemented a Self Service Check-In Kiosk for the Business Office, ESL Advisement and International Students Area on the Camden Campus. The Kiosk increased efficiency by digitally displaying and organizing student</p>

	<p>accessibility and customer satisfaction with the deployment of Self-Service kiosks. Touch-screen information kiosks will provide students, staff and visitors with automated check-in for high-volume areas. This technology helps the college staff more efficiently service students and staff.</p> <p>In later phases, the kiosks will provide students, staff and visitors with campus directories and general information about the College.</p>			<p>names to assist with student check-ins in high volume areas. The Kiosks allowed the college to efficiently and effectively process an excess of 13,000 records in 2014 and 18,000 in 2013.</p>
	<p><b>Document Imaging</b></p> <p>Scan archived records for Financial Aid and Human Resources into digital format.</p> <p><b>Business Justification:</b></p> <p>Document Imaging is another project that helps the college reach their goal to increase productivity and efficiency within the administrative departments at the college. Many departments are required by State and Federal agencies to store records for long periods of time, creating a need to manage a large number of records, storage cabinets and space.</p> <p>Storing documents electronically saves costs on paper, filing cabinets, floor space, and provides easy accessibility to archived records in a timely manner. The ability to electronically retrieve data quickly opposed to wading through volumes of files is a major improvement in efficiency and provides a means of data retrieval in a the case of a disaster.</p>	<p><b>\$120,000</b></p>	<p><b>C</b></p>	<p>Configured and implemented Onbase Document Imaging software to scan student, faculty and staff records into a digital format for Human Resource and Financial Aid departments. All development performed by a 3<sup>rd</sup> party vendor. FY 13 and FY14</p> <p>Onbase development was brought in-house providing a \$50K in savings. The following departments were deployed in FY14 and FY15. Records, Admissions, Business Office, International Student Services. Public Safety and Purchasing are next to</p>

				be implemented in this process. OIT also obtained State Certification for the Document Imaging Process ensuring that documents are retained according to the State of NJ mandated retention periods for Community Colleges and Public Entities.
	<p><b>Fixed Assets Inventory Control</b></p> <p>Implement an inventory control system with Radio Frequency Identification (RFI) to track fixed assets within the college facility.</p> <p><b>Business Justification:</b></p> <p>Inventory management in recent years, has become extremely important in identifying and tracking the college assets, particularly technological assets. Millions of dollars are spent on recovering lost, stolen or damaged inventory. As we move forward to a RFI Inventory control solution many assets can be tracked, managed and located if stolen. Therefore, the selected system must provide a secure and reliable means to track each product owned by the college. This will help with the retrieval of stolen property which will save the college on inventory purchases and other costs.</p> <p>An inventory management system will to also provide a means to track assets for insurance amortization purposes in case of severe damage or a disaster.</p>	\$0*	0	Data collected from the Inventory Management Process was downloaded into One Solution to produce inventory and asset reports eliminating manual asset depreciation assessments. 3 new reports were created to aid in this process.
	<p><b>Improve and Secure Virtual Private Network (VPN )</b></p> <p>Replace current VPN backend system to provide a more secure environment.</p> <p><b>Business Justification:</b></p> <p>OIT is replacing the current VPN backend system (Juniper) and replacing it with a less</p>	\$20,000	0	The Cisco AnyWhere and Cisco Connect systems were deployed to provide a more secure VPN environment and more VPN options for mobile

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	<p>expensive, equally comparable Cisco system to tighten user security and ensure that only approved users have access to the system. This change allows approved users to access the network resources outside of the college domain but keeps out unauthorized users to the system. It also increases the student ability to access any college data from home, school or any remote location.</p> <p>The new Cisco backend process has a complicated 'unfriendly' User Interface (UI) and OIT will investigate software companies that could implement an improved website displaying a 'friendly' User Interface for the user.</p>			device accessibility.
<b>Goal2</b>	<b>Implement Leading Edge Technologies</b>			
	<p><b>Investigate New Technologies to Integrate with College Community</b></p> <p>Investigate and review new technologies to determine if the technology will integrate with our network infrastructure and enhance our ability to provide a quality education in a competitive college environment.</p> <p><b>Business Justification:</b></p> <p>As OIT continues to review and evaluate leading edge technologies to implement for academic and professional excellence, it is also necessary to perform the appropriate evaluation to ensure the technologies of choice are the 'best' solutions for our daily operations opposed to being the 'latest' technology. The technology desired must add value to the overall college experience without restructuring the entire infrastructure.</p>	\$0*	0	Investigated various technologies for all projects prior to deploying the selected technology. Each approved project and technology are included in this document.
	<p><b>Microsoft Exchange Email 2010</b></p> <p>Install, implement and integrate Exchange Email 2010 into the OIT infrastructure.</p> <p><b>Business Justification:</b></p> <p>The college is currently on an obsolete version of Exchange Email system that will soon reach End-of-Life (EOL) and End of Support (EOS). Standard support for the 2003 version ended more than a year ago, and there has been great technological progress made since then. Implementing 2010 Email Exchange will provide many</p>	\$0*	0	<p>Converted College staff and full-time faculty to MicroSoft Exchange Email 2010 providing improved email capabilities and functions.</p> <p>This project was originally estimated for completion in FY13 but</p>

	<p>benefits including improved email capabilities and functions allowing the integration with and the ability to stay current with Microsoft standards. Exchange also supports server virtualization, cost savings on storage, larger mailboxes, continuous replication of email and the “Universal Inbox”.</p> <p>Of the many advantages, the ‘Universal Inbox’ is one of the most popular benefits in that email and voice mail are available from a single location and can be accessed from multiple locations. This increases efficiency amongst our user community.</p>			<p>due to funding and resources limitations the project was postponed and completed in FY 14.</p>
	<p><b>SharePoint 2010 implementation and Integration</b></p> <p>Install, implement and integrate SharePoint 2010.</p> <p><b>Business Justification:</b></p> <p>The 2010 SharePoint implementation establishes a centralized location to store, retrieve, access and update shared stored documents and resources. The user will now have the ability to access OIT shared documents, reports and resources from both the intranet (the office) and the internet (anywhere).</p>	<p>\$0*</p>	<p>O</p>	<p>Implemented Sharepoint 2010, an internal OIT project to improve OIT processes by providing a centralized document storage location giving OIT the ability to share, retrieve, update and access project documents.</p>
	<p><b>Server Virtualization:</b></p> <p>Consolidate physical hardware (servers) with VM software.</p> <p><b>Business Justification:</b></p> <p>Server Virtualization maximizes the return on the server hardware investment by allowing several server “images” to run on one physical computer. Because of this, enterprises that have adopted virtualization have been able to consolidate multiple servers onto fewer physical devices, which can dramatically reduce space, power and administrative requirements. Virtualization also allows for rapid deployment of new servers as needed, since additional hardware is normally not required when creating additional servers in the organization.</p> <p>Since virtual server images can be easily backed up, copied and moved to other locations, virtualization can serve as the backbone of a business continuity strategy, so companies can achieve continuous application availability and automated disaster</p>	<p>\$25,500</p>	<p>C</p>	<p>Deployed 47 Virtual Server Hosts out of 65 to support new and expanding applications.</p>

	recovery across physical sites. This can reduce or eliminate the need to outsource these services.																							
	<p><b>Increase Wireless Footprint</b></p> <p>Increase wireless accessibility throughout the college.</p> <p><b>Business Justification:</b></p> <p>Statistics suggest that college aged student use their cell phones 94-96% for internet access. Increasing the wireless coverage on the campus will improve the overall user experience, providing continuous internet coverage from building to building without interruption.</p>	<b>\$38,000</b>	<b>C/O</b>	<p>Extended the Wireless footprint on all campuses. See percentage of increase in chart below.</p> <table border="1"> <thead> <tr> <th>Campus</th> <th>FY13</th> <th>FY14</th> <th>FY15</th> </tr> </thead> <tbody> <tr> <td>Blkw</td> <td>24</td> <td>48</td> <td>60</td> </tr> <tr> <td>CDM</td> <td>21</td> <td>42</td> <td>TBD</td> </tr> <tr> <td>CH</td> <td>13</td> <td>21</td> <td>TBD</td> </tr> <tr> <td>RETC</td> <td>16</td> <td>33</td> <td>TBD</td> </tr> </tbody> </table> <p>Note: All numbers in percentages.</p>	Campus	FY13	FY14	FY15	Blkw	24	48	60	CDM	21	42	TBD	CH	13	21	TBD	RETC	16	33	TBD
Campus	FY13	FY14	FY15																					
Blkw	24	48	60																					
CDM	21	42	TBD																					
CH	13	21	TBD																					
RETC	16	33	TBD																					
<b>Goal3</b>	<b>Provide Classroom and Operational Technical Support</b>																							
	<p><b>Design and Implement New Classroom Technology</b></p> <p>Design, purchase and install Audio and Video (AV) technology needed for new classrooms in new and existing buildings on campus.</p> <p><b>Business Justification:</b></p> <p>Implementing Audio and Video (AV) technology within the classroom creates an exciting and competitive educational experience for both the student and the instructor. Many students come to college expecting to be taught with leading edge technology such as Smart Boards, Smart Cards, etc.</p> <p>OIT uses in-house employees to implement AV technology in new classrooms to save on costs. Approximately, 4-6 classrooms are scheduled for new technology during a year, generating a huge saving while also meeting the student's expectation of attending a leading edge institution with technological and educational advancements.</p> <p>Further savings are realized because the Perkins Grant supports any permanent technical equipment installed in new classrooms.</p>	<b>\$40,000</b>	<b>C</b>	<p>Designed and programmed 46 Audio and Video (AV) systems for new science building and existing classrooms.</p> <p>Effective FY15 ISD is no longer part of OIT.</p>																				

	<p><b>Provide Technical Classroom Support</b></p> <p>Provide accessible technical support and maintenance for all classrooms</p> <p><b>Business Justification:</b></p> <p>Continue to provide On-site instant technical support and maintenance for faculty, staff and administration.          Provide in-house technical repairs for all technology, TVS, PCS, lap tops, audio equipment, etc.          Continue to provide audio, video, technical and wiring assistance for all for all events at the college.          Provide equipment, support and operations for all events, including concerts, rallies, meetings, etc.</p>	<p><b>\$0*</b></p>	<p><b>0</b></p>	<p>OIT will continue to upgrade IT capabilities in classroom technologies, student services and faculty support. Audio Visual (AV) technical support will remain with ISD. Effective FY15 ISD is no longer part of OIT.</p>
	<p><b>Provide Software Management for College Community</b></p> <p>Design, develop, review, evaluate, implement and manage software needed for the college community.</p> <p><b>Business Justification:</b></p> <p>Continue to be the single point of contact to manage software. Having OIT as the single point of contact for all software purchases and management saves the college funding on support services, redundancy in applications capabilities and hardware purchases.</p>	<p><b>\$0*</b></p>	<p><b>0</b></p>	<p>OIT will continue providing quotes and verifying software and hardware for technical purchases, ensuring the best price and correct vendors are being used for the technology requested.</p>
	<p><b>Implement MS Windows Live™</b></p> <p>Increase the user experience with multiple methods of communication.</p> <p><b>Business Justification:</b></p> <p>Launching MS Windows Live™ provides a web base version of MS Office to all users in the cloud. Guest students can now access Word, Power Point (PP), Excel, and other MS Office applications to do class work.</p> <p>This provides students accessibility to applications that make them successful in the classroom which is an important goal for the college. Many students do not own a PC</p>	<p><b>\$0*</b></p>	<p><b>0</b></p>	<p>Implemented MS Windows Live™ to provide students, Adjunct Faculty and Continuing Education Faculty the ability to access their email. These accounts included online versions of MSWord and Excel, as well as collaboration tools like</p>



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	<p>or have access to MS Office; the implementation of MS Window Live will give them access through our network. Additional benefits to implementing MS Windows Live™ include instant messaging capabilities and access to Skydrive, which provides cloud-based storage, a system for creating, sharing and managing Microsoft Office documents, as well as a photo management and sharing environment.</p>			<p>SkyDrive.</p>
	<p><b>PC Life Cycle Management</b> Increase efficiency of PC support and deployment.</p> <p><b>Business Justification:</b></p> <p>OIT will continuously work with computer vendors to ensure that the college contractually has the latest equipment and software for the best possible price.</p>	<p><b>\$0*</b></p>	<p>O</p>	<p>FY13 – OIT deployed 24 MAC computers</p> <p>FY14 – 70 staff members received all-in-one PC and 200 all-in-one workstations for were deployed for students.</p> <p>FY15 – 10 of the Staff received new all-in-one PC and 24 new MACs were installed in classrooms.</p>
	<p><b>Provide Technical Event Planning</b></p> <p>Provide technical event planning for both internal and external customers who use the college facilities</p> <p><b>Business Justification:</b></p> <p>Currently, the ISD group provides technical support for all events planned at the college. Their duties include setting up and breaking down technical equipment used at the event. Making sure that all technical devices operate correctly and without problems. Having a group within the college to perform this role saves the college from the cost incurred using outside resources for the same job.</p>	<p><b>\$0*</b></p>	<p>O</p>	<p>OIT will provide support for all technical events.</p> <p>ISD provided technical event coverage and worked with the Office of institutional Advancement for all major events, including but not limited to meetings, Graduation, etc.).</p> <p>Effective FY15 ISD is no longer part of OIT</p>

	<p><b>Update Dimmer Lighting System</b></p> <p>Upgrade existing dimmer lighting system in the Dennis Flyer Theater to an auto programmable light system.</p> <p><b>Business Justification:</b></p> <p>The current lighting system and other room preparations for an event are manually intensive usually taking more than 8 hours to prepare for an event. As a result, no other event can be held in the facility 24 prior to an event because of the painstaking technical setup now in place. The updated Dimmer system will significantly reduce the man hours needed for lighting and other room setup. It also potentially creates additional revenue for the college because the new dimmer system takes minutes to configure and frees up the room for rental 24 hours prior to the event.</p>	\$100,000*	C	<p>Replaced obsolete lighting system with a new updated automatic Dimmer Lighting System in the Dennis Flyer Theater to improve lighting and replace the current manually intensive system.</p> <p>Effective FY15 ISD is no longer part of OIT</p>
<b>Goal4</b>	<b>Improve OIT Planning Processes</b>			
	<p><b>Campus Wide OIT Governance</b></p> <p>Establish a committee consisting of OIT, SME, and Person(s) from involved department(s) to create a process to assist with purchasing of technology software and hardware.</p> <p><b>Business Justification:</b></p> <p>Currently, any department in the college community can purchase software to use without consulting OIT. Creating a process for the purchase of software ensures that any software or hardware purchased for the college will integrate with the current systems without the need for additional hardware, software or other costly items. The process should also detail support required by OIT, giving OIT the opportunity to create support processes and allocate resources.</p>	\$0*	O	<p>The Campus Wide OIT Governance Committee established the Campus Wide Software and Equipment Purchasing Compliance process for OIT to approve ALL software and hardware purchased on campus to eliminate redundancy and help OIT manage hardware and support contracts on equipment.</p>
	<p><b>Annual Review of OIT Contracts</b></p> <p>Perform annual reviews of Contracts/Bids/RFPs within OIT to maximize their value.</p>	\$0*	O	<p>OIT continues to review contracts to ensure the technical content are still relevant to the needs</p>

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	<p><b>Business Justification:</b></p> <p>Annually review OIT contracts to help understand and leverage contents of existing contracts. Establishing this practice within the department will determine what is currently available versus what is technically required for the college.</p>			<p>of the College. In reviewing contract for 2014, OIT was able to reduce the number of contracts from 65 to 44, resulting in a savings of \$741,182.99.</p>
	<p><b>Student information System Planning Session</b></p> <p>Conduct campus wide monthly meetings to discuss and plan student activity as it pertains to OIT and other departments.</p> <p><b>Business Justification:</b></p> <p>The Student information Systems (SIS) Planning meetings are conducted on a monthly basis to proactively discuss any changes that impact of the student or the college processes.</p>	<p>\$0*</p>	<p>0</p>	<p>SIS Planning meetings are conducted monthly.</p>
	<p><b>Campus Wide Software and Equipment Purchasing Procedure</b></p> <p>Create a campus wide Software and Equipment policy to help manage purchasing and support costs for software and hardware used by the college.</p> <p><b>Business Justification:</b></p> <p>Create a campus wide Software and Equipment policy to help manage purchasing and support costs for software and hardware used by the college</p>	<p>\$0*</p>	<p>0</p>	<p>Established the Campus Wide Software and Equipment Purchasing Procedure for OIT to approve ALL software and hardware purchased on campus to eliminate costs and redundancy and help OIT manage hardware and support contracts on equipment.</p>
<p><b>Goal5</b></p>	<p><b>Development of Personnel</b></p>			

	<p><b>Technical Training for Students, Faculty and Staff</b></p> <p>Train faculty, adjuncts and staff to operate technical and AV equipment and applications in each classroom.</p> <p><b>Business Justification:</b></p> <p>There is growing need and expectation from students and faculty to have access to the latest media and educational technology available in the industry. With this expectation, OIT has the responsibility to train the users on all equipment to ensure proper use and care of the equipment. Educating users on how to properly use equipment reduces repair and replacement costs which can often exceed the initial cost of the equipment.</p>	<p><b>\$0*</b></p>	<p><b>0</b></p>	<p>OIT will continue to cross train employees within the OIT disciplines, educate staff through the Tech Ed Series and train users on new and existing applications.</p> <p>AV trained the faculty to operate Smart Podium Technology, Smart phones and Tablets. AV training will reside with ISD.</p> <p>Effective FY15 ISD is no longer part of OIT</p>
<p><b>Goal 6</b></p>	<p>Develop a Risk Mitigation Strategy</p>			

	<p><b>Update Current Disaster Recovery and Business Continuity Plans</b> Update the current Disaster Recovery and Business Continuity Plans.</p> <p><b>Business Justification:</b> Disaster Recovery and Business Continuity Plans are critical for any business or school because of the many facets to consider. The Plan for the college will be created in phases, spanning several years to realize the full coverage needed for an educational institution. In order to develop the right plan, it is imperative that the cost of the data used within the college is understood and measured.</p> <p>A plan should also cover all aspects of the college by determining scenarios for minor disaster infractions like a fire in a building as well as natural disasters that impacts the region. The plan will cover the steps required to recover the system and keep the college operating. It will also determine what data is required by each department in a recovery process as stipulated by Federal, State and County Government for each department. For example, Financial Aid may require that the college retain 10 years of data and another department might have a different need. Whatever the need, OIT will document the request in the plan ensuring that all data is restorable. This will save the college the cost of recreating lost data in case of a disaster.</p>	\$0*	0	<p>For Local solutions, the college is currently updating a comprehensive Disaster Recovery (DR) plan for all applications and servers at the college. The plan includes having the ability to access the college applications and network from any of its locations in the event of a disaster. For Hosted Solutions, the vendors hosting our cloud solutions provide DR plans for each application in addition to remote access during a disaster.</p>
	<p><b>Test Current Disaster Recovery and Business Continuity Plans</b></p> <p>Test the current Disaster Recovery and Business Continuity Plans to ensure its validity.</p> <p><b>Business Justification:</b></p> <p>Once the Disaster Recovery and Business Continuity Plans are complete, OIT will test the plans by facilitating mock disaster scenarios. This will help determine if the plans work as designed.</p>	\$0*	0	<p>Testing is contingent upon the completion of the comprehensive Disaster Recovery Plan and the purchase of the hardware needed to support the plan.</p>

	<p><b>Execute Security Audit</b></p> <p><b>Develop and execute an independent Security Audit Plan to access and validate the technical aspects of the system and applications.</b></p> <p><b>Business Justification:</b></p> <p><b>OIT will find an independent Security Audit Plan to use to obtain a measurable technical assessment of their systems or applications. The Audit will create a baseline for any government mandated data or processes. Executing this process eliminates fees and costs incurred by specific government programs and instructions.</b></p>	<p><b>\$40,000</b></p>	<p><b>0</b></p>	<p>An outside vendor, Ferilli, assisted and provided additional Security expertise in the development of OIT's Security Audit requirements for the College.</p>
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	Year 2			Results
	2013-2014	Estimated Annual Cost	Funding Source: Capital (C) or Operating (O) Budget	
Goal1	<b>Increase Data Accessibility and Efficiency to the College Community with a Reliable and Secure Infrastructure</b>			
	<p><b>Restructure and Redesign College Network Configuration</b></p> <p>OIT will redesign the current Network to improve intra and inter campus communications ensuring that all campuses have multiple internet connections and ample bandwidth for administrators, students and faculty to perform daily operations with a high capacity and quick response time.</p> <p><b>Business Justification:</b></p> <p>The current network configuration converges into one central point of transport causing a major bottleneck during peak performance hours. To help eliminate this issue, OIT will reconfigure the college network to increase capacity and redesign the network to have multiple routes for communication traffic. The new design of the network will ensure that each campus has multiple ways to route the communication and data intensive traffic to and from campuses with minimal effort increasing employee, student and faculty productivity</p>	\$200,000	?	To eliminate a single point of failure within the College's Network, OIT replaced the existing Hub and Spoke topology with a new Nexus infrastructure that created a Mesh Topology.
	<p><b>Self-Service Help-Desk</b></p> <p>Develop an application/method to assist users on the phone with frequently asked questions and Help-Desk requests, such as resetting passwords for their student accounts.</p> <p><b>Business Justification:</b></p> <p>Introducing Self-service applications to the college community would allow students, faculty and staff to get frequently asked questions (FAQs) addressed without interaction from a Help-Desk representative. This gives the user 24 hour a day</p>	\$0*	O	A Self-Service call tree was added to the Help Desk phone line to provide 24 hour answers to FAQs and assist the College Community when calling the HelpDesk.

	support and immediate access to college information.																																																			
	<p><b>Implement Mobile Applications for Datatel</b></p> <p>Establish mobile applications to access Datatel from the Apple iPhone and Droid.</p> <p><b>Business Justification:</b></p> <p>Research proves that 94% of the community college students use their cell phone to search the internet. Adding a mobile application to access CCC student data supports this leading trend as well as the college mission “to provide dynamic, student-centered, comprehensive and accessible educational opportunities that address the diverse needs of the community”. See data below.</p> <p><b>College students and their gadgets</b>  <i>Percentage of all adults in each group who own different devices</i></p> <table border="1"> <thead> <tr> <th></th> <th>All adults</th> <th>Non-students, 18-24</th> <th>Undergrads</th> <th>Grad students</th> <th>Community College</th> </tr> </thead> <tbody> <tr> <td>Cell phone</td> <td>82%</td> <td>89%</td> <td>96%</td> <td>99%</td> <td>94%</td> </tr> <tr> <td>Desktop computer</td> <td>60</td> <td>58</td> <td>59</td> <td>73</td> <td>67</td> </tr> <tr> <td>Laptop computer</td> <td>52</td> <td>64</td> <td>88</td> <td>93</td> <td>70</td> </tr> <tr> <td>iPod or mp3 player</td> <td>45</td> <td>69</td> <td>84</td> <td>86</td> <td>72</td> </tr> <tr> <td>Game console</td> <td>41</td> <td>64</td> <td>58</td> <td>49</td> <td>61</td> </tr> <tr> <td>e-book reader</td> <td>5</td> <td>4</td> <td>9</td> <td>7</td> <td>4</td> </tr> <tr> <td>Tablet computer</td> <td>4</td> <td>4</td> <td>5</td> <td>5</td> <td>4</td> </tr> </tbody> </table> <p><small>Source: Pew Research Center's Internet &amp; American Life Project 2010 tracking surveys. All include landline and cell phone interviews. N for all adults=9,769; n for 18-24 year old non-students=717; n for four-year undergrads=246, n for grad students=112, n for community college students=164.</small></p>		All adults	Non-students, 18-24	Undergrads	Grad students	Community College	Cell phone	82%	89%	96%	99%	94%	Desktop computer	60	58	59	73	67	Laptop computer	52	64	88	93	70	iPod or mp3 player	45	69	84	86	72	Game console	41	64	58	49	61	e-book reader	5	4	9	7	4	Tablet computer	4	4	5	5	4	TBD	O	Datatel Mobile application is in the testing phase and estimated for production in February 2015.
	All adults	Non-students, 18-24	Undergrads	Grad students	Community College																																															
Cell phone	82%	89%	96%	99%	94%																																															
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Goal2	<b>Implement Leading Edge Technologies</b>																																																			
Goal3	<b>Provide Operational Technical Support</b>																																																			
	<p><b>Implement Proactive Help Desk Walk-Through Support</b></p> <p>OIT will provide Help Desk Support to entire college community.</p>	\$0*	O	HelpDesk personnel continue to proactively perform periodic walk-																																																



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	<p><b>Business Justification:</b> OIT Helpdesk will continue to provide on demand support to the college community as needed but will also extend their services proactively by doing weekly walk-arounds to various departments.</p>			arounds to various departments.
<b>Goal4</b>	<b>Improve OIT Planning Processes</b>			
	<p><b>Incorporate a Process Management Discipline</b> Develop a Process Management Discipline to help standardize specific procedures and activities and increase efficiency within the OIT staff.</p> <p><b>Business Justification:</b> As the OIT department expands to support the every growing college community, it is imperative that policy and procedures for day to day activities are documented and standardized as much as possible. We want to ensure the college community is receiving consistent and reliable OIT products and services</p>	\$0*	0	<p><b>OIT</b> has implemented portions of the Software Development Lifecycle Cycle (SDLC) process to create standard development processes. Increased peer and cross training among OIT disciplines; technicians, network, telecom, application development, etc.</p>
<b>Goal 5</b>	<b>Development of Personnel</b>			
<b>Goal 6</b>	<b>Develop a Risk Mitigation Strategy</b>			

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	Year 3			
	2014-2015	Estimated Annual Cost	Funding Source: Capital (C) or Operating (O) Budget	Results
Goal1	<b>Increase Data Accessibility and Efficiency to the College Community with a Reliable and Secure Infrastructure</b>			
Goal2	<b>Implement Leading Edge Technologies</b>			
	<p><b>Implement Digital Signage Project</b> Strategically implement digital sign boards and monitors throughout the college campus to display college information and announcements.</p> <p><b>Business Justification:</b> OIT will implement digital signs boards and monitors strategically in high volume areas to increase the ability to keep the college community informed in an instant. The information will vary from day to day but can be changed instantaneously in the event of an emergency.</p>	TBD	C	This project is a part of the Taft Renovation project.
	<p><b>Hosted Cloud Solutions</b> Evaluate and Determine the implementation of a Hosted Cloud Solution</p> <p><b>Business Justification:</b> Cloud services have many varieties including public and private clouds, as well as the option to leverage your current IT environment to build a hybrid cloud. Cloud services impact organizations competitiveness, flexibility, and IT economics for several years. Camden County will continue to provide a stable and competitive environment for students and administration by analyzing how a hosted cloud implementation will benefit the college and implement the solution.</p>	\$7,000	O	OIT continues to investigate and evaluate whether an application is best suited for hosting or in-house development. Currently, One Solution and ExecuTime are hosted solutions.
Goal3	<b>Provide Operational Technical Support</b>			
Goal4	<b>Improve OIT Planning Processes</b>			

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<b>Goal 5</b>	<b>Development of Personnel</b>			
	<p><b>Develop and Maintain an Overall OIT Training Plan</b></p> <p>Develop comprehensive career training paths for OIT staff.</p> <p><b>Business Justification:</b></p> <p>Increase knowledge of OIT staff by offering training to develop and enhance skill set and knowledge base ensuring that we continue to provide great support to all of customers.</p>	\$0*	O	OIT is currently developing procedural documents for the applications used at the college to assist with training and development.
<b>Goal 6</b>	<b>Develop a Risk Mitigation Strategy</b>			
	<b>Year 4</b>			
	<b>2015-2016</b>	<b>Estimated Annual Cost</b>	<b>Funding Source: Capital (C) or Operating (O) Budget</b>	<b>Results</b>
<b>Goal1</b>	<b>Increase Data Accessibility and Efficiency to the College Community with a Reliable and Secure Infrastructure</b>			
<b>Goal2</b>	<b>Implement Leading Edge Technologies</b>			
	<p><b>Datatel SQL Conversion</b></p> <p>Improve the Student Information Systems (Colleague) architecture by migrating to a SQL environment.</p> <p><b>Business Justification:</b></p> <p>Converting Datatel to Windows SQL moves the college to a manageable and flexible architecture that supports the future direction of the vendor as well as the college in their quest to provide competitive and reliable access to students, faculty and staff. This architecture provides the ability to integrate easier with newer applications and</p>	\$0*	O	<p>DataTel SQL Conversion Project in was initiated and put on hold in 2013. The project will resume in FY2016.</p> <p>Purchased the Informer Reporting Tool to support development and report conversions easier for users.</p>

	<p>technologies.</p> <p>In addition to the architectural improvements, there is also a cost savings benefit on hardware. The current system is supported on a HP server that costs approximately \$85,000. The new architecture is supported in a Windows environment and Window servers are a fraction of the cost.</p>			
	<p><b>Virtual Desktop Infrastructure (VDI)</b></p> <p>OIT will design and implement VDI for the college community.</p> <p><b>Business Justification:</b></p> <p>VDI removes applications and programs from the client (PC) and places them onto centralized server(s) allowing the user to run operating systems and execute programs from any virtual desktop. VDI promotes user mobility and accessibility from any PC, Smart Phone or Thin Client with access to the network.</p> <p>Moving programs and applications to a centralized server creates a cost savings by reducing the number of licenses needed per user. In the VDI model, users share access to the software on the server instead of on each user having licensed software locally on their local PCs. The reduction of licenses per campus is a significant cost savings to the college. Other cost savings benefits include PC life cycles being extended 70-80%. Currently, we refresh PCs on average in 3-4 years after purchase. VDI could extend the life of a PC to 6 to 7 years.</p>	TBD	TBD	<p>Implemented the Core switch needed for VDI applications.</p> <p>VDI implementation will continue through FY16 pending available funding.</p>
	<p><b>Introduce Tablet Classroom</b></p> <p>Replace traditional PC desktop equipment in classrooms with tablet technology.</p> <p><b>Business Justification:</b></p> <p>As the college moves to a virtual environment, a technology refresh within a classroom will not require the repurchase of Personal Computers (PCs), instead, a tablet computer could be purchased to perform the same activities with a significant saving to the college.</p>	TBD	C	<p>3 Classrooms have been updated with IPAD technology.</p>

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<b>Goal3</b>	<b>Provide Operational Technical Support</b>			
<b>Goal4</b>	<b>Improve OIT Planning Processes</b>			
<b>Goal 5</b>	<b>Development of Personnel</b>			
<b>Goal 6</b>	<b>Develop a Risk Mitigation Strategy</b>			

	<b>Year 5</b>			
	<b>2016-2017</b>	<b>Estimated Annual Cost</b>	<b>Funding Source: Capital (C) or Operating (O) Budget</b>	<b>Results</b>
<b>Goal1</b>	<b>Increase Data Accessibility and Efficiency to the College Community with a Reliable and Secure Infrastructure</b>			
<b>Goal2</b>	<b>Implement Leading Edge Technologies</b>			
<b>Goal3</b>	<b>Provide Operational Technical Support</b>			
<b>Goal4</b>	<b>Improve OIT Planning Processes</b>			
<b>Goal 5</b>	<b>Development of Personnel</b>			
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**Note:** \* = Project completed by internal staff.