BCCC INFORMATION TECHNOLOGY STRATEGIC PLAN Table of Contents

Introduction - History

Executive Summary
  Strategic Focus Areas
  Purpose
  Vision, Mission and Values
  Information Technology Services - Strategic Goals 2013 -2018
  IT Mission Statement
  Strategic Planning Process

BCCC College Environment Scan - Challenges and Strengths

BCCC Technology Environment – Summary
  ERP System
  Document Management/Document Imaging
  Reporting/Analytics
  Financial Aid
  Information Assurance and Risk Management

Information Technology Services Focus Areas / Strategies
  Academic and Faculty Support
  Student Services Support
  Facilities Expansion and Renovation
  Infrastructure, Administrative and Operational Support
  Technology Planning

Attachment A: BCCC Technology Environment by Functional Category
Attachment B: State Reporting Requirements and the BCCC Technology Plan
BCCC INFORMATION TECHNOLOGY SERVICES STRATEGIC PLAN

Introduction – History

Information Technology Services at Baltimore City Community College (BCCC) has in the last 10-12 years been marked by three major phases that characterize the growth of technology at BCCC. The first major phase was an infrastructure build-out and modernization effort designed to create and expand the network, create a data center for data, voice and video. The network was migrated from Asynchronous Transfer Mode (ATM) to Cisco switches about 1998-1999.

The second phase ran somewhat concurrently with the infrastructure phase, the student information system was acquired with student, financial, and portal modules in 1996 and several years thereafter.

A more recent and significant circumstance was the closing of the Bard Building campus (downtown Baltimore) in 2010 and moving of all systems to the two Liberty Heights campus datacenters. The third phase beginning in 2012 marked a major change to acquire a modern ERP system to replace the legacy ERP with the state of Maryland, and emphasis moved from infrastructure build-out to resource and service management. The IT Services department implemented regular product replacement cycles, began process improvement (i.e. change management), and formalization of due diligence and product evaluations. This period also marked a major change in data center and server consolidation from standalone servers to an 80% virtual machine (VM) environment.

Since 2012 technology governance has incorporated the college-wide IT Committee which includes a faculty-led Instructional Technology sub-committee. ERP governance includes the Executive Steering Committee, and the ERP Working Group which has chartered a Data Standards sub-committee. The institutionalization of these committees will provide the framework for the college to move forward to institutional data driven decisions and facilitate departmental fact based problem solving.

This Technology Plan was produced with wide input from:

- Student and faculty college-wide surveys
- In-depth environmental assessments
- Facilitated discussions and working sessions with: Institutional Advancement Marketing and Research (IAMR), Business & Finance, the Faculty Senate; College Council; President’s Staff; ERP Executive Steering Committee, ERP Working Group, It Services, Student Affairs, Business and Continuing Education (BCED), Academic Affairs and the IT Advisory Committee (ITAC).
Executive Summary

This document represents the Information Technology Services Strategic Plan for Baltimore City Community College. This plan document provides guidance and direction for the Information Technology Services department to deliver services and support for the college strategic master plans. The following are the five Information Technology Services strategic focus areas typical of a 2 year higher educational institution:

Academic and Faculty Support
Student Services Support
Facilities Expansion and Renovation
Infrastructure, Administrative and Operational Support
Strategic Technology Planning
Purpose

The purpose of the Information Technology Services Strategic Plan is to guide the college community technologically and document how IT Services actualizes its processes in support of the college goals and direction. The long term focus areas and strategies and goals should be viewed as guides to define, accept, approve, and prioritize the necessary Academic and Student Services initiatives by following the Information Technology Services Strategic Plan document below.

BCCC Vision Statement

Information Technology must play a fundamental part in the college vision and mission. Specifically IT supports the BCCC Vision of Baltimore City Community College strives to be the leader in providing quality education that responds to and meets the needs of a diverse population of learners, adding value to lives and the community.

BCCC Mission Statement

Baltimore City Community College provides outstanding educational, cultural, and social experiences to the citizens of Baltimore, the state of Maryland and surrounding areas. The College’s accessible, affordable, comprehensive programs include college transfer and career preparation, technical training and life skills training. The College provides a variety of student services that meet the learning needs and support for an increasingly diverse student population. BCCC, a dynamic higher education institution, is responsive to the changing needs of its stakeholders: individuals, businesses, government, and educational institutions of the community at large.

Core Values (proposed):

Diversity – recognizing, accepting, appreciating, and supporting individual differences and lifestyles.

Excellence - Providing excellent teaching, student services, customer services, and community engagement

Integrity – unwavering adherence to a strict moral and ethical standard

Leadership – empowering, nurturing, and inspiring individuals to be leaders in their own sphere

Professionalism – an acceptable learned behavior that adheres to the highest standard of customer service.

Respect – Showing genuine concern in regard for the dignity of others while practicing civility, accepting, appreciating, and supporting individual differences

Teaching – impacting knowledge, skills and values that are essential to the success of the individual and growth of the community.
College Strategic Goals 2013 -2018

GOAL 1: Student Success

Increase fall-to-fall retention rate
Raise the number of degrees and certificates awarded

GOAL 2: Community, Business & Industry, and Education Partnerships

Increase partnerships that address student, business & industry, training, and workforce needs
Develop at least ten new programs that are relevant and meet business and industry needs
Ensure the quality and relevance of programs and services

GOAL 3: Institutional Sustainability

Increase non-state revenue by $5 million
Ensure the physical plant effectively supports the learning environment
Continuously assess and improve institutional effectiveness and operational efficiencies
Increase credit and noncredit enrollments
Ensure a highly qualified employee workforce

GOAL 4: Technology
The College goals were originally set in 2012 for the 2013-2018 five year planning cycle and encompass the following Technology strategies:
1. Implement an industry standard IT infrastructure (Servers, Telecom, Switching, & Security)
2. Complete the implementation of a college wide administration system (ERP)
3. Implement best practices in teaching and learning with state-of-the-art technology to improve student success (such as Cloud, social media, video streaming, etc.)
4. Develop, implement and maintain a comprehensive College-wide replacement refresh program
IT Mission Statement

*Information Technology Services is dedicated to fulfilling the BCCC mission by providing the teaching and learning community, and administrative staff with skilled technological expertise, services and resources within a collaborative, consultative, secure and cost effective environment.*

To fulfill this mission, IT Services will:

- Provide access to data to those departments able to take advantage of the technology available
- Provide effective and efficient technology support
- Promote the effective integration of technology throughout the entire college through planning, training, programming and consulting
- Support the BCCC core values by concentrating on technological development, service-centered, learner-centered and efficient use of resources.

The mission statement was designed to support the Academic Affairs and Faculty mission (the teaching and learning community) as well as the student experience (Student Affairs) staff via the Financial Aid, Enrollment, and Registration groups through the Enrollment Plan.
Strategic Planning Process

As part of the Strategic Planning Process for IT Services, each year the Information Technology Services group reviews the current master plans (as shown in Figure 1 below) and notes any significant changes. The alignment with those changes influences IT Services direction with their goals.

College Strategic Plan
Strategic Enrollment Plan
Academic Plan
Facilities Master Plan
Financial Planning Model (budget cycle planning)

Figure 1: Planning Process Model and Overview Diagram
After reviewing the college strategic plans and departmental needs, Information Technology Services creates an initial draft. The initial draft is presented to IT Services directors and managers, their staff and key subject matter experts across the college for their review and input on technology, product sectors and direction. After internal review of the Strategic Enrollment Plan, the Academic Master Plan and BCED’s planning and direction, this becomes the ITS Strategic Plan “working draft” and is sent through the BCCC governance process committees.

This process ensures the “master plan” series of documents is incorporated and aligned with the college’s technology and Facilities Master Plan planning. The governance and vetting includes the Academic Council/Dean’s Council, ERP Executive Steering and Working Committees and review and guidance by the inter-departmental representatives through the IT Committee Advisory Committee (ITAC). As shown in the more detailed approval process diagram below (Figure 2). After IT Committee review and recommendations, the IT Plan is forwarded to the Leadership Team for final internal review prior to presentation to the college Board of Trustees.
Figure 2 Technology Plan – Review and Approval Process

The organization of the Technology Plan adheres to the Planning Process Overview diagram where the strategic goals and focus areas drive the strategies, objectives in turn drive the tactical plans. The Technology Plan works well when client departments can obtain the answer to; “Will this process, software, module or project fit within what BCCC is trying to do short term or long term?”

Departments will be able to determine how specifically the other college strategic plans align or coordinate, so that the goals and initiatives that affect both students and faculty the most will receive the highest priority attention in terms of staff time and IT budget resources.

The corresponding strategies and objectives are the goals “solution sets”, these are the initiatives that solve what the goals present as challenges.

Goals and the Focus Areas provide the framework – the “what” and “why”)

⇒ Objectives and Strategies (Provides focus and more detail on “what”, “where”, and “who”)

⇒ Action plans/tactical plans (the “how” and “when” usually lead to approvable projects

The college budget process should be followed with typical early planning in Fall and completing with the approved budget in the late Spring/Summer from the state. The technology alignment within the college is that projects and expenditures are identified by the divisions and submitted to the college wide IT Committee (ITC) for review and approval during the planning process (November through February/March). The IT Committee approves those it deems fit within the 1-2 years of the budget cycle for both tactical and strategic initiatives.

This makes sure the planning process is aligned with the college/state budget process. Requests for projects and their related expenditures are documented and aggregated via the PPI (Project Proposal or similar process) to the IT Committee Advisory Committee (ITAC) for inclusion and many would align to the Critical Success Factors (CSF), the college and technology goals.
Information Technology Plan
Budget Alignment

Annual

BCCC Technology Budget Cycle

1. Start collect Requests
   Oct

1. Operationalize Projects
   July

Budget Submitted
April-May

Communicate Budget
May-August

Annalyze trends & data
Nov-Jan

Obtain final Dept requests
Dec/Jan

Create action plan and budget
Jan-Feb

ITC reviews/approves
Feb

Align w/budget
March
BCCC College Environment Scan - Challenges and Strengths

Technology, business process, organizational, and college-level assessments have been used to document the challenges that lay in front of BCCC as well as short-term and long-term term strategies and solutions used to mitigate those challenges.

Assessments both institutional, Academic and Enrollment have been taken into consideration.

Formal and informal assessments as well as onsite knowledge, experience and analysis show that not all of the challenges have been overcome at this point in time. A solid technology plan must be in place to provide a framework and processes to achieve those attainable goals and thereby meet the mission of the college by resolving the remaining issues.

The following are some of the identified challenges or impediments to a more fully functional technology at the College.

Technology refresh cycles
Security and audit compliance
IT Services support model and staffing
IT Services organizational staff development
Customer Services training in all departments
Planning synchronization (alignment) across departments

Faculty and students were polled through a survey in 2013 on their greatest needs and the results are presented here as challenges in summary form:

Faculty
Supporting the college strategic goal #1 of Student Success

A clear technology upgrade plan that can be communicated well to the college

Technology resources must work consistently, all classrooms should have working projector, screen, and computer

All classrooms must be Internet accessible

Need faster Internet, more bandwidth capacity

The Academic strategy with its directional and programmatic needs should drive the colleges expenditures. Based on the mission of the organization, the progressive IT organization then determines the IT strategy which will propel the organization forward based on those needs.

Students
Supporting the college strategic goal #1 of Student Success
Upgrade and keep up with technology so students can compete in the workforce.

Make the campus more technology friendly

Notifications and email via mobile devices including Blackboard mobile notifications options
More and better technology services, i.e. more tutoring
Adding more working technology resources across all disciplines, i.e. Nursing
Enhanced instructional technology; record class sessions that could be instantly posted with courses

Strengths
The administration, faculty, staff and students are eager and willing to learn and adopt new technologies
There is a growing set of managers, directors and leadership that have experience with technology
The governance structure has been established and needs to be institutionalized to continue to serve the college well into the future
The college wide IT Committee has a major focus on faculty and instructional technology
The IT Services group is dedicated, open to change and with continued management and technical training will be able to provide quality service to its client groups
The backbone infrastructure is robust and can be leveraged

BCCC Technology Environment - Summary

Assessments; institutional, Academic, enrollment and technological reviews have been taken into consideration in compiling the college environment. Ideally these reviews should occur not only for the 5 year strategic plan but should be reviewed annually for the tactical planning.

Network
The College environment is very typical of many higher education institutions, including use of Cisco switches for the core, distribution and access layers. The access layer is the endpoint delivery usually represented by a desktop or mobile end-user device. IT Services supports the seven area sites through a combination of fiber, T1 data lines, and microwave wireless technology. The main campus backbone via fiber is robust at 2GB speed.

Systems
The system side is powered by Microsoft system server 2008, with about a dozen 2003 version still in operation. There are about 50 - 2008 servers of this type in production with another two or three dozen used for administrative or email purposes. The only Unix server is used for instruction in the Business and Technology Department. There are a total of 70+ servers some of which are redundant and are being decommissioned and others are test platform machines.

**Databases**

There are two SQL server clusters in operation (production), one in each of the two data centers. These support the application storage, organization and delivery of data for the various software systems in use at the college. There are also a handful of SQL Server databases specific to individual application software.

**Datacenters**

BCCC has two data centers in operation, one in the Main administrative building and the more robust data center is located in the Life Sciences Building (LSB).

**Administrative Systems Environment**

The administrative systems (ERP) environmental list was compiled in 2009 and recently updated by the ERP Working Group and is included separately due to its size. Attachment A: BCCC Technology Environment by Functional Category. The main ERP system is past due to be replaced and after state project & budget approval, is in the early stages of the procurement cycle.

**ERP System**

One of the major challenges and of college-wide significance affecting virtually every department, Baltimore City Community College will be replacing its “administrative system”. It which consists of archaic and in many cases no longer supported modules. This legacy ERP system was assembled together in the late 90’s and is mainframe and COBOL based. This non-integrated, patchwork system can no longer support basic compliance regulations or enhanced business functions, much less the most recent and more stringent Higher Education Opportunity Act (HEOA- reauthorized in August of 2008) which took effect in July of 2010. BCCC has been found deficient in recent audits and is not in compliance with some basic state and federal mandates.

A modern college requires much more coherent and streamlined functionality to run the business, needs standardized processes, and the ability to identify employees and students without using SSN’s and birthdates, which is a legal deficiency in the current systems. The current independent, ad-hoc modules are not well integrated, causing administrative inefficiencies, data and file duplication, data
security gaps and operational issues. For example, a student’s information is stored in multiple modules independent of each other - causing problems with record updates in multiple data stores and keeping data in sync is ultimately impossible without tremendous manual effort.

Though current systems provide some elementary amenities for student services and staff functions, maintaining them is no longer a viable option, as many of the companies who developed these systems are no longer in business. System code cannot be easily modified and may have proprietary vendor issues. Web front end accessibility is limited and does not present a flexible environment that is required for today’s mobile environments.

BCCC proposes an Enterprise resource planning (ERP) systems to address the current deficiencies. An ERP system will integrate information across the entire organization, embracing finance/accounting, admissions/enrollment, financial aid, and Human Resources. The purpose of ERP is to facilitate the flow of information between all business functions and securely interconnect with external clients and agencies. The new ERP will include a true portal module and we anticipate the following benefits:

- Ability to share basic and advanced information to mobile devices regardless of platform (Android, Apple, Windows)
- Employ push and pull technology; this technology will supply a proactive means of providing information to students. This approach will be discipline or industry centric, so for example, current and future health students would receive notices specific to nursing, phlebotomy, and dentistry. Those in the energy sector like weatherization would receive notifications of advanced classes or work opportunities relating to energy sector.

- Self-service web based tools would be available for students, faculty and administrative staff, so mundane and time-consuming chores like resetting your password can be done by the individual.
- Ability to use the portal as a front-end for students (with reminder and notices) and for staff as a work-related central console. For example, faculty might see the 10 most recent e-mails and a staffer in accounting would see the 12 most recent invoices that are due. The portal and its discrete information blocks would all be very customizable and configurable to various workgroups. Constituent groups will consist of an initial deployment across students, staff and faculty; with future and more granular groups like Alumni and discipline or program specific (i.e. Nursing, Weatherization) audiences will be added over time.

- Another major component will be an operational data store and reporting data warehouse as well as the reporting tool itself.

Planning will detail the 36-48 month process to launch the following major modules at 9-12 months each:

- Finance, including the chart of accounts (COA)
- Student module for Admissions/Enrollment
- Financial Aid
- Human Resources
- Academic Affairs processes
The ERP project is a $16.8 million dollar project to replace the entire Administrative System. An enterprise level, commercial off-the-shelf (COTS) ERP system will totally replace the legacy systems and will enable our primary stakeholders with functionality not currently available. We anticipate the students having the ability to better manage their academic portfolio; staff will be able to perform basic and advanced administrative functions, and faculty will have the ability to perform classroom management and communicate with students on a daily basis.

Ideally the imaging system would be purchased in conjunction with the ERP system, however it may benefit BCCC to look at this product sector now as long as the document imaging solution is compatible with any future ERP system.

**Document management/document imaging**

Another area that has been identified as a college wide (cross departmental) need are document management/document imaging. This encompasses the following areas of scope:

A. Content management system
B. Document imaging

Content management has been reviewed by the IAMR for the BCCC website with IT consultation, but a final decision has not been made. Currently SchoolWires, the website hosting company’s content management system is being used in the interim.

Document imaging is needed for all the obvious reasons of eliminating manual handling, centralizing documents in repository as detailed below:

Save Employee Time – Employees waste a great deal of time looking for records. Records can be at an individual’s desk or in the departmental files. Electronic records are more easily found via search functions if indexed properly. Electronic records also don’t require time to file after they are used.

Process improvement – Imaging enables employees to find all relevant documents requested easily. Vast improvements in time and handling can be achieved if processes are mapped from beginning to end in standardized workflows.

Reduce Space – Thousands of scanned documents can be stored on a server. To store a similar number of paper documents would require voluminous file cabinets and rooms.

Save Money – Cut physical storage space needs, storage costs and improve everyone's productivity.

Security – Privacy laws including HIPAA and FERPA require business to keep control over private information. With electronic documents it is easier to establish and maintain control. Security can be focused down to the document or folder level and access changed as job functions or processes change. What each employee enters, view or delete can also be tracked.
Disaster Recovery – The consequences of losing manual records can be substantial; having paper records puts the college at risk for burglary, flood and fire. Scanned documents can be backed up to a remote server or more permanent media on a regular basis.

**Reporting/Analytics**

BCCC is at the data management & data integration stage, the reporting system should be further along for standard and ad-hoc reports. Progress to the next level should eventually lead to a sophisticated analytics practice in our operations and the ability to create real time predictive models that will provide the institution competitive intelligence analytics that support adoption of better student acquisition and retention strategies.

BCCC should take advantage of market segment information based on a given cohort, income level, high school performance, test achievement of students. The analytics can go beyond the basic operational reports and begin to use geographical, student profile segmentation, and benchmark analysis.

In short, it should enable measuring the effectiveness of certain strategies and programs, creating databases, datasets or analytic cubes that provide competitive intelligence in the Student Services, Academic Affairs and Business & Finance areas.

**Financial Aid**  
Supporting the college strategic goal #1 of Student Success

Financial Aid is seeking process and system performance improvement from the systems that they use to process student aid.

BCCC is also looking for an improved feature set from the next release of financial aid software.

Not addressing these concerns not only has student implications but could have audit consequences

**Information Assurance and Risk Management**

As a major employer and a higher education institution, Baltimore City Community College is expected to comply with new and more complex regulations by state, local and federal agencies.

BCCC is a Maryland state agency and is therefore subject to a rigorous audit environment with an annual financial and a tri-annual legislative audit. College technology must be aligned with the State & Federal regulations as well as IT audit requirements

Compliance maybe forcing many organizations to expend resources and efforts that cannot help security or drive the organizational mission forward, rather these limited resources should be targeted towards
driving a security culture and people controls which will result in improved and durable results. A mature organization should have performance targets rather than compliance targets.

A risk management approach would focus on the organizational mission and concentrates those limited resources on high priority security threats and opportunities to develop a balanced security program. This approach uses information security as a strategic asset and a business opportunity to improve the organization.

A focus on compliance can falsely reassure an organization into thinking they are secure because they have complied with a regulation or audit finding. Pursuit of passing an audit or obtaining a certificate of compliance can lead an organization into the deceptive belief that because the system is certified it is secure. Without people controls, and continuous monitoring and improvement over time, a system cannot be secure – information security is not a state (only a point in time) but a process. There is a greater need for a strong risk management approach and would therefore long-term result in a reduced need for the compliance approach.

People controls is a key component moving of an organizational risk management strategy management. Management should be engaged in developing a program which balances technology, people, and policy controls to ensure the best return on investment. Investment in people tends to (people controls and an information security culture) have a higher return on investment because people and culture tend to improve over time.

HIPAA, FERPA, state and federal (i.e. NIST-800 series) , as well as other regulations and standards should be examined to evaluate the correct balance of technology, policy, and people controls.

- **Strategic Focus Area: Student Affairs Support**
  Supports the college strategic goal #1 of Student Success and goal #3 Institutional Sustainability: Ensure the physical plant effectively supports the learning environment.

  **STRATEGY: Provide effective and efficient technology support**

  Support the Testing Center with its unique, critical need for system reliability due to high demand for its services within the region.

  Support the implementation of processes to promote use of online services for users. This may include Student Affairs direct support of students though interactive chat, another service could be the ability to interact with IT Services technicians for direct support from IT Services or e-Learning support.
STRATEGY: Assist student support users with the development of enhanced processes to provide more effective and efficient services.

Provide process improvement, workflow through robust document imaging for Admissions, Enrollment and Financial aid.

In conjunction with BCED develop processes to provide enhanced systems access for non-credit and casual users (BCED.)

Assist with evaluation and adoption of tools to enhance services to students, for example a module for early alert intervention.

Provide enhanced services such as student “one card” that could be used across an array of departments and service such as Library, cafeteria services, Financial Aid.)

STRATEGY: Comply with state and federal regulatory and reporting requirements.

Continue to provide to support for DSS technology and services for special needs students.

Establish and maintain ADA compliant accessibility for; workstations in classroom/labs and the BCCC website.

Strategic Focus Area: Academic Affairs Support and BCED

Supports the college strategic goal #1 of Student Success and goal #2: Community, Business & Industry, and Education Partnerships

STRATEGY: Provide instructional technology support for credit and non-credit.

Provide instructional technology support for programmatic needs that extend beyond standardized smart rooms. New program such as Cyber Security, Electrical Engineering, as well as current program such as Dental Hygiene, Nursing, Business and Technology Department-Unix & Oracle, and Fashion.

Provide instructional technology support for new programs such as Pharmacy Management, Medical Billing Training, medical simulator

Support enhanced instructional technology: Install and train staff at BCED on Smartboards, Equipment/software for PodCasting

Obtain Student-client tracking software with Outlook integration, support email blast or targeted emails capability by category and sub-category.

Provide capacity to run appointment scheduling/ advisement software le for student appointments and advising.

Provide BCED/Test Center functionality and security for GED and WorkKeys testing.
**STRATEGY: Provide basic operational technology and equipment refreshes at normal intervals**

Aligns with Academic Plan which in turn drives the Facilities Master Plan and the Technology Plan

Equipment refresh plans, especially for classroom/labs, Library and Faculty

Teaching support: Next iteration of Windows OS and MS Office Suite (Windows 8 and MS 2013) or MAC support when curriculum or marketplace requires it.

Continued support for E-Learning & associated programs (Learning Management System-LMS)

Mobile technology support (iPads or other tablets).

Continue support of Library Management System and systems for online access to Library research materials.

Migrate the Library Management System from Oracle to a SQL-based system.

- **Strategic Focus Area: Administrative – Business & Finance and Human Resources**
  
  Support goal#3: Institutional Sustainability (both: ensure the physical plant effectively supports the learning environment & continuously assess and improve institutional effectiveness and operational efficiencies)

**STRATEGY: Provide enhanced Document Management capabilities.**

Document Management; provide enhanced provide capability for electronic signatures on documents

In addition to the general college document management, establish electronic retention schedules, sun-setting and shredding process guidelines

**STRATEGY: Provide infrastructure to support normal operations**

Aligns with the Academic Plan and which drives the Facilities Master Plan and Technology Plan

Complete redesign of the Public Safety infrastructure, specifically the video network

Align with academic programmatic needs(credit and non-credit), all renovations or new spaces will have technology built in and budgeted

**STRATEGY: Provide Human Resources the Systems and support they need to efficiently manage employees, vendors and applicants**

The ERP system implementation schedule is such that HR should look at an interim solution that ideally would allow it to function optimally for the next 1-2 years.
Establish one master database for all full-time, part-time and contractual employees. This should interface with the state payroll system.

Review the applicant tracking module to replace the manual, paper based process.

**Strategic Focus Area: Administrative – Information Technology Planning**

Technology upgrades: SharePoint, SQL Server, Windows OS (Windows 8) and MS Office 2013.

Infrastructure refresh; Public Safety infrastructure, BCCC network

SharePoint not only needs an upgrade, but needs to be redesigned and then rolled out again with training to the user community.

Network: Network infrastructure will be due to be refreshed starting now and for the next few years.

Systems: The systems infrastructure is very good with all new Intel G8 system servers in place. The virtualization effort will finish off the remaining 20% of servers that haven't been virtualized or consolidated. Desktop virtualization should be implemented; this will give the college better desktop management, deployment options and better security. It will also allow the Academic Affairs and IT Services the flexibility to run lab software from any location, not just from specific assigned labs.

The SQL Server databases need to be upgraded to a more current version (2008 or 2012) and then tuned and optimized.

Data centers: The main data center in LSB building is more standard than the old data center in the Main building which should be discontinued and made into a test platform area. The capital projects list has the Library being renovated and a new data center being established in that building in a few years.

Mobile technology: lay groundwork for BCCC branded iTunes or Apps store.

Articulate and implement a coherent Information Assurance (compliance), Risk Management and people controls strategy.

Implement VOIP for all campuses and act as one network.

**STRATEGY: Comply with state and federal regulatory and reporting requirements.**

Aligns with the State & Federal regulations as well as Audit requirements

Provide Institutional Research and Student Services with research, investigation and reporting support to assist with internal and regulatory reporting.

Articulate and implement a coherent Information Assurance (compliance), Risk Management and people controls strategy.
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