SAINT MARY'S COLLEGE
NOTRE DAME, IN

Information Technology Strategic Blueprint

A collaborative effort of the

Teaching, Learning and Technology Round Table
Banner Steering Committee
Saint Mary's Staff Members

Janice Thomasson, Chief Information Officer

2008-2012 Saint Mary's College

Information Technology Strategic Blueprint

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Executive Summary

2008-2012 Information Technology Strategic Blueprint

Executive Summary

In 2008 the College adopted President Carol Ann Mooney's Strategic Plan, *Path to Leadership*. A vision for Saint Mary's College in the next five years, the Strategic Plan includes a description of the information technology (IT) needs and desires for the college community. As stated in Appendix I:

> *Our students must be technologically literate. Students acquire the highest level of technological skills when those skills are required in their courses. To ensure that Saint Mary's graduates are technologically proficient, we must research, test and use the emerging technologies.*

The *Path to Leadership* acknowledges that there are fundamental infrastructure, administrative computing and system-wide technology requirements involved in successfully providing a robust academic environment, including "*a faster data link, a content management software system to assist us in displaying timely and accurate information on our Web site, a Web portal, and a One-Card system for both security and campus purchases*."

Initiatives in the 2008-2012 Blueprint are aligned with the direction in the *Path to Leadership*. The adoption, integration and funding of the technology applications described in this blueprint will enable Saint Mary's College to remain competitive while delivering exceptional service to students, faculty, staff, and alumnae. With the guidance of the Chief Information Officer, the Vice President and Dean of the Faculty and the Vice President of Finance and Administration, we have been able to identify the information technology needs and desires of this college community. In some instances, recommendations in this document exceed the expectations of that plan. The processes which encouraged widespread involvement in the Blueprint's creation elicited additional needs and desires. The Blueprint also prioritizes those needs and desires.

This document represents the collaborative work of the Saint Mary's College Banner Steering Committee, the Teaching, Learning and Technology Round Table and other content experts (Appendix A), and are supported by the CIO, the VP for Finance and Administration and the VP and Dean of Faculty. A combination of strategic and tactical planning recommendations, the Blueprint includes recommendations spanning four diverse content areas:

- Technology infrastructure, networking telecommunications and service (Chapter One)
- Integration of technology into teaching and learning (Chapter Two)
- Integrated administrative systems and web-based services (Chapter Three)
- IT services (Chapter Four)

Some initiatives will involve minimal costs, while others will require substantially more funding. Some are short cycle efforts, requiring only a few weeks or months to complete. Others involve large-scale implementations spanning two or more years. Some do not impact other systems; others (such as those involving our SunGard Banner product) are highly complex and must be carefully executed to ensure success.

To prepare the team for their planning and writing assignments, information from three recent EDUCAUSE technology surveys was disseminated before Blueprint work began. EDUCAUSE, a nonprofit association whose mission is to advance higher education by promoting the intelligent use of

information technology, conducts annual surveys on pressing higher education IT challenges facing member institutions. Nearly 600 institutions typically respond. Survey content is in Appendix B. Funding IT was the number one issue in 2007 (i.e., of highest importance). This suggests that most institutions, like Saint Mary's College, experience challenges when identifying the sources for technology funds.

Costs in this document are for initiatives not yet funded in current campus operating budgets. To ensure Blueprint content and cost estimates remain up to date during the next four years, an *Annual One-Year Update* will be published as an addendum to the original document each year.

Saint Mary's College Vision Statement

Saint Mary's College is recognized as a leading liberal arts college. Intellectually ambitious women receive a residentially based liberal arts education complemented by strong professional and pre-professional programs. Successfully grounded in its Catholic and Holy Cross identity, Saint Mary's is diverse, welcoming the wider articulation of the truth that diversity makes possible.

Saint Mary's College Fundamental Principles

First Principle:	Saint Mary's is committed to providing students with an excellent intellectual and academic experience.
Second Principle:	Saint Mary's College is unwavering in its commitment to being a Catholic and Holy Cross college.
Third Principle:	Saint Mary's is committed to being a women's college.
Fourth Principle:	Saint Mary's is committed to being a residential college.

Vision and Assumptions

Saint Mary's College IT Vision

> *Saint Mary's College envisions a reliable, robust, secure and accessible information infrastructure. The Information Technology (IT) Department will be recognized as "best in class" and a service model for private liberal arts colleges. This will be achieved by remaining sensitive to the needs of our College community, including students, faculty and staff, delivering services in a timely and helpful manner, educating our College Community about technology resources and related issues, and continually improving the services provided through training, creativity, teamwork and innovative change.*

In considering technology and planning for the future these assumptions were used:

Assumptions about SMC Constituents (Faculty, Staff and Students)

- They expect technology services to be available 24 x 7
- They are diverse in their skills and knowledge of technology
- Current and emerging technology is important to them
- They expect portable technology, including wireless

Assumptions about Our Culture

- We carefully manage our financial resources
- We are committed to the Catholic residential women's college model
- Our academic stature will continue to keep us competitive

Assumptions Related to Technology

- The use of technology will continue to increase at the college by all constituent groups
- The use of technology cannot overcome poor processes
- Technology will continue to change in unpredictable ways

- The use of technology can enhance teaching and learning

Assumptions about Our Resources and Budget

- There is not enough funding to do all that we wish; therefore we must prioritize our initiatives
- When technology is acquired, follow-on support costs must be included in operational budgets as annual recurring costs

Chapter 1
Technology Infrastructure, Networking, Telecommunications and Services

Overview

Saint Mary's College has experienced significant technology growth since the mid-nineties when the institution's network design and infrastructure were developed based on now outdated, technology. This Blueprint chapter addresses our institutional technology needs for the period 2008-2012, including initiatives with activity related to:

1) Physical network (copper wiring,) electrical power and backup power (Infrastructure)
2) Fiber optic network and the devices that control the network information (Networking)
3) Telecommunications
4) Data storage and server capabilities (Storage and Servers)
5) Wireless build-out

1.1 Infrastructure

While Saint Mary's College has an aging but currently usable technology infrastructure, our standard CAT-5 copper wiring, installed in the late 1990's, was designed to carry information at what are now considered low speeds and specific distances. A CAT-6E wiring upgrade will become the standard and required on the campus in the next decade to support the anticipated increase in constituent functions and demands, for video, voice, and collaboration.

Occurring concurrently with the CAT-6E wiring replacement will be the analysis and upgrade of electrical power in the College's wiring closets. Backup battery service will be passed through these closets, providing electrical power over the campus network for telephones, computers and other future devices. This will ensure continued telephone service in the event of a power outage, especially in emergencies. Many of us take for granted the ability to use the telephone during a power outage. For some, this will be the only way to contact Security in an emergency, and thus it is critical that we ensure that the capability is available.

This SMC infrastructure upgrade will span several years, requiring coordination between the Director of Facilities, the CIO, outside electrical contractors and other vendors. Occurring in phases, building by building, as funding and time allows, upgrade work in some larger, older installations (i.e., LeMans and Holy Cross Hall) will be divided into subsections for completion.

Who Needs to Be Involved:

- CIO
- Director of Facilities
- Director of Networking and System Administration
- Other IT staff as required

Timeline/Tasks: (To be identified based on approach)

- Step 1
  - Conduct site evaluation (determine campus building electrical capabilities)
- Step 2
  - Create bid process for electrical upgrades
  - Select vendor
- Step 3
  - Formalize and communicate upgrade plan (building/dates/times)
  - Begin electrical upgrades based on plan results

- Step 4
    - Continue electrical upgrades

Costs:

- Electrical upgrades and battery backup will depend upon results of survey. However, total costs are not expected to exceed $1 million.
- Some costs will be in tandem with item 1.2
- Research on a possible VoIP installation will be conducted during this period, with no capital costs anticipated

1.2 Networking

The Saint Mary's College network environment meets our current needs, but as we consider the demands to carry voice, video and other traffic in the future, we must increase our capacities appropriately. In 2002 the College network supported speeds of 10 megabits to every computer on every desk and 100 megabits for the connections to servers and from building to building. The network also supported 3200 connections/jacks. After a four-year upgrade process these numbers have increased to 100 megabits to every computer on every desk, 1000 megabits (GigE) to servers and buildings and the presence of 7000+ network jacks. That demand continues, and for the future we must introduce Gigabit Ethernet (GigE) to the desktop and 10 Gigabit connectivity to our servers and buildings. Additionally, power over network connections (referred to as power over Ethernet, or POE for short) may be installed to support anticipated future voice needs (VoIP, or Voice over Internet Protocol). POE will also be the way to recharge laptops and other devices and most likely, power desktop computers, eliminating the need for the physical infrastructure for electrical power for desktops in the future. We need it if we proceed with Voip in the future, so this planning direction is logical. Gigabit will enable virtualized faculty and staff desktops, thereby reducing recurring desktop computer upgrade costs by centralizing computer power on the server side. Desktop backups over the network would also be possible even if we do not enable virtual desktops. Over the next 5-10 years SMC's network bandwidth needs will grow. The cost of Gigabit Ethernet implementation on an as-needed basis will generally become prohibitive if we plan and price this out piecemeal.

Another area of network growth involves enabling our connection to I-Light2, which was completed in Fall 2008. I-Light2 is a combination of Internet connectivity and peer connectivity with other institutions of higher learning in the State of Indiana. Our current internet connection of 45 megabits would remain the same, but connectivity to peer Indiana colleges and universities has increased to 1 Gigabit. This would provide faculty, staff and students with the ability to collaborate with colleagues at peer institutions over voice, video or other future methods at very high speeds for the purposes of performing research, e-learning, distance learning, etc. Students now have very fast access to online research materials, and other heavily frequented sites. Our business continuity efforts will be well served via I-Light2 by ensuring our ability to partner with other institutions and by providing secure, off-site backups for data and business information.

Wireless installations for the three remaining large buildings on campus (LeMans Hall, Holy Cross Hall and Moreau) require site surveys as well as wiring and hardware installation. The vendor for the survey and installation is already selected and we need only to budget and schedule the projects. Due to their large size, these buildings are best done individually and not concurrently.

The network upgrade project will be done in phases over the next five years, building by building. Coordination with infrastructure upgrade activity (section 1.1) will be taken into account.

Finally, the need to ensure efficient levels of electrical power in all of the SMC residence halls is of significance. This will be addressed as part of the Phase II Master Plan, Facilities Condition Index and

will be addressed and remediated accordingly under the leadership of the Saint Mary's College Director of Facilities.

Who Needs to Be Involved:

- CIO
- Director of Facilities
- Director of Network and Systems Administration

Timeline/Tasks:

- 2008 Fall
  - Activate I-Light2 (completed)
- Step 1
  - Wireless surveys for Holy Cross, LeMans and Moreau
  - Surveys and estimates for copper wire upgrades
  - Begin copper wire upgrades
- Step 2
  - Install additional wireless as budget allows based on survey results
  - Finish surveys for copper wire upgrades
  - Continue copper wire upgrades and replacements
- Step 3
  - Finish wireless installations, review wireless coverage
  - Finish copper wiring upgrades and replacements

Costs:

- The cost of the I-Light2 connection was subsidized by the State of Indiana. A contractual agreement will remain in effect for five years (2008-2013).
- Copper wire upgrades

1.3 Telecommunications

In November 2007 the College began a five-year outsourcing agreement with AT&T, concurrently installing a Nortel Networks DMS 100 Centrex phone system with Aastra handsets and Mitel NuPoint Messenger Voicemail. While this agreement will serve Saint Mary's current telephony needs, we must plan to accommodate the continuing convergence of voice and data. This involves establishing a Voice over Internet Protocol (VoIP) telecommunications implementation proposal for introduction after 2012. VoIP is now a mature approach and the most flexible solution to consolidate data, voice and video traffic over the same network. Further, it will allow SMC to examine unified messaging (voicemail to email, email to voicemail) and integration of wireless solutions. With concern for safety and security on campuses at an all-time high, VoIP would also enable the installation of network IP cameras for enhanced safety and security. Responsibility for Telecomm (currently residing in Facilities) would return to IT.

Initial research will determine any needed electrical changes in buildings, identify possible industry partners and solutions. An implementation plan will be established in conjunction with items in Sections 1.1 and 1.2.

Who Needs to Be Involved:

- CIO
- All Cabinet Members
- Director of Facilities
- Director of Security
- Director of Network and Systems Administration

Timeline/Tasks:

- Step 1
    - Conduct site evaluation (determine campus building electrical capabilities)
- Step 2
    - Submit capital budget request for possible electrical upgrades
- Step 3
    - Complete vendor selection process

Costs:

- VoIP installation research will be conducted, with no capital costs anticipated

1.4 Data Storage and Servers

To date there has been minimal long-range planning for data storage and servers at SMC. This section addresses the development of a proactive planning role in the future. Such plans involve the acquisition of SAN technology as well as the use of clustering and virtualization.

Storage has to date been "tied to the server" (campus web servers, Blackboard Course Management and Event Management Systems). In the future it is advisable to invest in Storage Area Networks (SANs), bringing storage needs for all constituents into one location and managed as a whole. Growth, backup and recovery and business continuity will be built in. The use of SANs, together with increased network speeds and business partnerships with peer institutions, will enable a tremendously fast, safe and reliable storage infrastructure to grow. SAN technology is needed to help centralize the administration of disk space and to move ahead with archival efforts.

Our future server models will leverage the use of clustering and virtualization, promising these benefits:

- Allow IT to become "greener," translating into lower costs of operation for electricity, air conditioning and floor space
- Take advantage of the reliability factor, thereby double- or triple-protecting our critical business applications
- Enable remote support
- Accommodate an off-site service area in the event of a disaster

A majority of the initiatives listed in this Blueprint from Chapters Two and Three will require significantly more funding if we implement them individually. Aggregating the planning here will result in solutions in a single place with the ability to plan for growth and expansion. An additional Network and System Administrator position is required. This individual will also assume responsibility for heightened Network security.

Many campus constituents will be a part of this effort. Any project being considered may need a server or storage component. Where possible, aggregations of hardware in projects (such as servers) are being implemented in a virtual environment, reducing the number of physical servers and their associated maintenance and support. Space on Blueprint-funded servers will be consolidated. As the document authors could not foresee which initiatives might be funded first, server acquisition costs were factored into each project list. All initiatives in this plan will be completed subject to College funding capabilities, considering other pressing institutional needs. The Systems group will be the first point of contact.

The project timeline will be developed in stages as other college departments inform us of their needs. Current needs are being met for 2008 but will require significant modification in the future.

Who Needs to Be Involved:

- CIO
- Director of Network and Systems Administration
- Other IT staff as needed
- IT Blueprint Project teams and plans

Timeline/Tasks:

- Step 1
    - Receive project proposals and IT project plans
    - Estimate storage requirements
    - Review solutions and product features
    - Meet with vendors
    - Select vendor and solution
    - Submit Capital requests
    - Advertise, interview candidates, and hire additional Network System Administer
- Step 2
    - Begin phase 1 implementation of storage area network (SAN) w/o Disaster Recovery Storage
    - Conclude phase 1
    - Review
- Step 3a
    - Begin phase 2 implementation
    - Expand services
    - Enable Disaster Recovery Storage
- Step 3b
    - Conclude phase2
    - Review as needed
- Step 4
    - Finalize storage and server requests
    - Review new or changed projects
    - Create "Lessons Learned" document

Costs:

- Step 1
    - All planning, no costs
- Step 2
    - Phase 1 – SANs implementation costs
- Step 3
    - Phase 2 – Enable Disaster Recovery storage costs
- Step 4
    - Phase 3 – Finalize storage request costs

1.5 Ad-Hoc Wireless Build-out

The Vice President of Student Affairs and other members of the President's Cabinet have requested the wireless build-out* of LeMans Hall, especially in the lounge areas above the first floor. These are areas where students would gather to collaborate electronically on their laptops if wireless is available. IT staff will work with this group to create a priority list of specific rooms and locations in which the build-out is to occur. These installations should be considered temporary with respect to the total wireless build-out for the building.

*This build-out involves adding wireless access points and electronics on an as-needed basis.

Who Needs to Be Involved:

- CIO
- Vice President of Student Affairs
- Vice President and Dean of Faculty
- Vice President of Finance and Administration
- Special Events (for scheduling of access to areas)
- Other constituents as appropriate

Timeline/Tasks:

- Step 1
    - IT Submits capital request for Ad-Hoc Wireless Build-out Phase I
- Step 2a
    - Begin Phase I Build-out
- Step 2b
    - IT submits capital request for Ad-Hoc Wireless Build-out, Phase II
- Step 3a
    - Begin Phase II Build-out
- Step 3b
    - IT submits capital request for any remaining areas which require wireless build-out
- Step 4
    - Complete wireless build-out as appropriate and needed

Costs:

- Purchase of wireless electronics and access points
- Install wiring for temporary access points and electronics
- Have vendor perform site surveys for determining access point placement

1.6 Enhanced Project Coordination with SMC Facilities Division

To more efficiently leverage use of our limited institutional resources, IT and the SMC Facilities Division will adopt three commonly used industry project management procedures.

First, they will implement a communication process aimed at proper installation coordination for all campus IT infrastructure work. Initiated before commencing any work in campus buildings, the procedure will allow Facilities to a) assist IT with efficient project activity sequencing, b) ensure the contracted work does not adversely affect the structural/aesthetic integrity of the buildings where technology will be installed, c) assure that the installation will not present inaccessible units to be maintained, and d) identify and coordinate any post-project problem corrections (i.e., to make sure those who will maintain the system will assume responsibility for a superior installation which is easy to operate and maintain).

A second process will include a written technology project plan describing how each upcoming project will be managed and how its technical aspects will be performed. Elements will include: (1) Project Objectives, (2) Scope of work to be done, (3) Schedule, (4) Financial Plan (budget, project costs) (5)Team Organization Matrix with resource responsibilities, (6) Quality Control Process, (7) Change Management Process, (8) Communication Plan, (9) Contingency and Risk Management Plan, and (10) Project Closeout Task List.

Finally, it is imperative that SMC staff review lessons learned on completed projects to leverage them for use in the future. To that end, each Project Team will perform a Project Post-mortem, reviewing activities to identify what did and did not go well. The Project team will conduct project completion analyses for both successful and unsuccessful projects.

Who Needs to Be Involved:

- CIO
- Director of Facilities
- Other staff as appropriate

Timeline/Tasks:

- Step 1
    - Meeting (IT and Facilities) to develop project communication, project plan and Post-Mortem procedure structures
- Step 2
    - Begin use of three new structures/procedures
- Step 3
    - Meet annually to determine need for procedure changes

Costs:

- No costs anticipated

Chapter 2
Integration of Technology into Teaching and Learning

Overview:

Saint Mary's College is reaffirming its historic commitment to teaching and learning effectiveness in ways that take advantage of powerful changes in the educational environment of the 21st Century. Saint Mary's Strategic Plan, *Path to Leadership*, Recommendation 9, cites five initiatives for the next five years:

1. Assess our students' technological readiness;
2. Further integrate technology in the teaching and learning environment;
3. Create an eFellows program to prepare faculty to carry out the integration described above;
4. Add 25 additional technology-enabled classrooms on campus; and
5. Create internships and apprenticeships in our own IT Office to provide interested students with intensive hands-on technology expertise prior to graduation.

This chapter expands on these five initiatives, placing them in four broad categories, (2.1 Student Learning with Technology -- Evaluating Student Technology Readiness, 2.2 Integration of Technology into the Curriculum by Faculty, 2.3 Learning Spaces That Facilitate the Integration of Technology into the Curriculum, and 2.4 Tools for teaching, learning and scholarship that utilize the latest educational technologies) The fifth student learning initiative is represented in Chapter 4 as project 4.3. Proposal content is based on current teaching and learning trends found in Appendix C, Changes in Instructional Technology.

2.1 Student Learning with Technology -- Evaluating Student Technology Readiness

Students at Saint Mary's College have varying degrees of proficiency and levels of comfort with technology use. As Saint Mary's becomes more diverse, those differences may broaden. It is critical for entering students to quickly become familiar with our campus technology resources and related network procedures. Students who are aware of and confident in campus technology use will be able to apply their knowledge to coursework, extra-curricular activities, and post-graduation experiences.

Student technology readiness involves applying students' knowledge to our campus technology environment. Assessments are advisable to evaluate entering students' basic information technology skills. Results of these assessments can be used to develop workshops, courses, the First Year experience content, and co-curricular learning opportunities. After the process is standardized with our students, it will be deployed for use with Saint Mary's faculty and staff to determine their levels of technology proficiency and schedule instruction to address their knowledge gaps.

2.1.1 Evaluating the Information Technology Skills of Entering Students

Students should be able to accurately describe a computer, set up a computer, load software, keep virus protection current, identify spam and phishing messages, back up data, practice general network etiquette, and comprehend basic computer terminology. Students should also be able to use standard software applications such as word processing, spreadsheets, and presentation tools. An assessment will be developed to evaluate the basic computer skills of accepted students prior to their arrival at Saint Mary's.

Who Needs to Be Involved:

- Coordinator of Student Computing
- Subcommittee of the TLTR Steering Committee formerly responsible for CPSC 101

- Associate Dean of Academic Affairs/Director of First Year Studies
- Director of Network and Systems Administration
- Director of Institutional Research

Timeline/Tasks:

- Step 1
    - Develop assessment tool
    - Web-enable assessment (so students may complete online before they arrive on campus)
- Step 2a
    - Include assessment access information in the information packet (sent to students from First Year Studies in May or June)
- Step 2b
    - Analyze assessment results
    - Analyze the aggregate assessment results. Identify any outliers for further action
    - Forward the results of the assessment to the Director of Instructional Technology and the Reference Librarian/Instruction Coordinator for further action (possible remediation, etc)
- Step 3
    - Deploy assessment process for use with faculty and staff
    - Analyze results
    - Determine training needed

Specifications:
This assessment must be evaluated, modified and administered annually to assess changing student technology skills.

2.2 Integration of Technology into the Curriculum by Faculty

Faculty who incorporate technology in their instruction face significant challenges, and the related learning curve is often a roadblock for instructors who traditionally regard themselves as content experts. To meet the challenge, we propose two types of development programs. The first (in Section 2.2.1) will focus on broad-based faculty development programs permitting many faculty to participate. The second type (in Section 2.2.2) will focus on using technology to support deep transformative changes in instructional strategies with fewer faculty (5-10 per year) due to a greater time commitment. These two approaches will be supplemented with a grant program that rewards individual faculty instructional technology innovation (Section 2.2.3)

2.2.1 Broad-based Faculty Development Initiatives

These initiatives are designed to support the thoughtful integration of technology into teaching. The following list begins with a needs assessment and current initiatives. It is followed by a variety of additional learning opportunities in an estimated priority order. Multiple formats, times and lengths of learning opportunities are proposed to meet a variety of learning preferences and faculty availability. The projects may shift in priority based upon needs assessment results.

Needs Assessment and Providing Support for Faculty:

- Administer to faculty a needs assessment on possible workshop topics and preferences for best times of the year to present them (during the semester or summer)
- Hire and train, via the Huisking Center,10 Student Technology Assistants to help faculty with their technology initiatives (existing)
- Showcase "Best Practices" involving technology applications (e.g. the Minerva Luncheon Series

during the academic year). Use Information Technology Department budget funding for three Showcase events per academic year (existing)

Future Workshops and Development Opportunities:

- Offer a series of "Technology Fridays" (four a semester, total of eight per year) organized around a variety of teaching / learning information technology applications. Selected topics will be low-threshold, easily learned and applied, and offering an immediate benefit. (new)
- Provide college-wide workshops on developing skills with specific tools, e.g., video using YouTube, digital audio, Blackboard modules/tools/plug-ins. (new)
- Develop a library of web-based online tutorials for software and digital learning objects available in our current systems for those who prefer self-paced learning. (new)
- Schedule periodic summer "Teaching with Technology" workshops for faculty who cannot attend during the academic year. Sessions on innovative instructional strategies would provide an opportunity for a campus-wide discussion. This event will be for 30-45 participants, based on attendance at previous similar events.

Who Needs to Be Involved:

- TLTR Steering Committee
- Director of Instructional Technology
- Director of Center for Academic Innovation and eFellows Program
- Additional staff/faculty for training module development and workshops

Tasks:

- Step 1
  - Develop and conduct Workshop Needs Assessment for faculty (to determine type, format and schedule of training).
- Step 2
  - Develop a plan/schedule for each training category
- Step 3a
  - Develop courses/workshops
  - Develop web tutorials
- Step 3b
  - Conduct workshops, classes, sessions, followed annually with assessment to be used for ongoing planning.

Costs:

- Summer Teaching with Technology Workshop: Speaker/trainer, food, event support
- Eight Tech Fridays/Three Minerva Series: Sufficient funding will be factored into the IT budget (Previous 2007-08 Minerva lunch expenses were covered with library restricted funds which are no longer available).

2.2.2 Campus eFellows Program

An eFellows Program has as its goal to support deep transformative changes in instructional strategies. The program is responsive to the needs associated with exceptionally creative uses of technology in a variety of instructional settings.

- This is accomplished through an immersion in instructional technology.
- The program ideally offers Fellowships to full-time Saint Mary's faculty members in two cohort groups of five each (one in the academic year and one in the summer)
- eFellows receive training, appropriate computing hardware, peripherals, and software to develop new computer-based instructional systems for use in their classroom and laboratory teaching.

- eFellows are given time to work together in a cohort, directed by the Director CFAI and with assistance from technologists and other support professionals, in an intense year-long or summer-long effort to study best practices in teaching and learning with technology and to integrate new technologies into a variety of instructional settings.
- The eFellows' home department receives financial support for release time of one course per semester; the summer eFellows receive financial support equivalent to teaching one summer course.
- eFellows receive funding for travel and resources relevant to their project.
- eFellows are responsible for evaluation/assessment of their involvement in the eFellows program and presentation at the end of the year.
- eFellows will provide mentorship to one eFellow in the next year's cohort and advisory support to their own departmental faculty members.

Who Needs to Be Involved:

- Vice President and Dean of Faculty
- TLTR Steering Committee in an advisory capacity
- CIO
- Director - Instructional Technology
- Director of Center for Academic Innovation and eFellows Program

The Program will hire a 0.3 FTE Director (combined with the position of Director of CFAI) and will have staff support from the Director of Instructional Technology. Proposed Program location is in the lower level of the Cushwa-Leighton Library, near the Huisking Instructional Resource Center in the space to be vacated by the College Archives (Fall 2009). The steering committee of the campus Teaching Learning Technology Roundtable (TLTR) will serve in an advisory role to the Director of the eFellows Program for adapting existing models to the Saint Mary's campus culture, and for program implementation.

Tasks:

- Recruit and hire Director for a .3 position. This position will be combined with the duties of the Director of the Center for Faculty Academic Innovation.
- The Director of the eFellows Program, with support from the TLRT, will review existing eFellow models to adapt the best eFellows practices to the Saint Mary's campus culture
- Invite applications for five faculty eFellows for first year participants and five summer participants;
- Develop a Center site reconfiguration plan, remodeling and equipping the new Center location; use Huisking Center resources as needed

Timeline/Tasks:

- Step 1
    - Hire a Director of CFAI
    - Site visit to existing programs for planning
    - Develop eFellows Program
    - Call for applications from eFellows
- Step 2
    - Begin first cohort of eFellows
    - Remodel and equip eFellows Center (as needed and appropriate)
- Step 3a
    - Successive cohorts of eFellows Program
    - Mentorship begins
- Step 3b
    - Program evaluation
    - Improvement of program plan
    - Program continues forward

Costs:

- Site visit travel for planning eFellows program (2)
- .3 director salary + benefits/ (absorbed into Director of CFAI position)
- Remodel/equip new Center (network/physical infrastructure upgrade, furniture, hardware, software)
- Training/workshop costs
- Operating budget for eFellows Director (e.g. supplies, software, etc)
- Cost of 1 course per semester release for each of 5 eFellows ; summer stipends for faculty equal to summer course teaching stipend
- Travel and resources relevant to their eFellowship

2.2.3 Faculty Innovation Grants

As funding permits, the IT Departmental budget will accommodate seed grants (five annually). These will replace the former ICUT Grants given by the Center for Academic Innovation for faculty wishing to explore innovative technologies. The grants will provide resources or cover expenses associated with the use of specific new technologies in teaching or research. Examples include use of Virtual world approaches (i.e., Second Life, etc.), and use of GIS data and systems in teaching and scholarship.

Timeline/Tasks:

- Step 1
    - Proposal for funding
- Step 2
    - Call for project proposals
    - Grants conferred

Costs

- Five stipends of $1500 each annually
- Equipment costs, 5 equipment placements at-$3000 each

2.3 Learning Spaces That Facilitate Technology Integration into the Curriculum

As faculty integrate more technology into the curriculum, they require specific learning spaces (and technology in those spaces) to accommodate instruction. With the introduction of more kinds of technology on campus, ensuring faculty are assigned to classrooms having the appropriate equipment can be a daunting task.

To simplify this process, in 2008 College staff developed a classroom inventory and upgrade system; as it is used it will be further refined and improved in the year ahead.

First an Advanced Technology Classroom Level rubric was established (see Appendix D), specifying the kinds of equipment with which a certain classroom level will/should be equipped. This has provided the team with a baseline guide to equip and assign classrooms. Next, a Learning Space Equipment Replacement Cycle timeline was developed to help IT schedule and budget anticipated equipment replacements (Appendix E). Third, an inventory of our campus classrooms and their contents was developed. The current iteration is presented in Appendix F . This dynamic document will change as classrooms are repurposed and/or upgraded.

Based on results from the process described above, staff identified 15 resulting activities related to learning spaces which should be addressed. Due to the number and complexity, information related to

these activities is located in the Proposed Learning Space Projects spread sheet (Appendix G). This is a dynamic document which will be updated as items are addressed and completed.

2.4 Tools for Teaching, Learning and Scholarship That Utilize the Latest Educational Technologies

Six recommendations were identified in this category. Due to the number and complexity, information related to these activities is located in the Proposed Projects spreadsheet (Appendix H). This is a dynamic document which will be updated as items are addressed and completed.

Chapter 3
Integrated Administrative Systems and Web-Based Services

Overview:

Saint Mary's College is in a position to leverage a number of technology applications and solutions to facilitate the work performed by faculty, staff, students and alumnae. Taking direction from the institution's Strategic Plan (see Appendix I), the Technology Blueprint Administrative Systems Team has identified a number of initiatives for further research and possible implementation during 2008-2012.

Initiatives 3.1 through 3.6 and 3.10 are to be researched, then possibly acquired and implemented.

Initiatives 3.7, 3.8 and 3.11 have already been acquired by the College and are to be deployed on campus. Initiative 3.12 requires not additional funding and will establish an advisory group.

3.1 One-Card System Selection

A campus team has been charged with performing a search for institutional One-Card options The goal is to choose a vendor to integrate a number of services into an access/declining balance-type card. To be used by faculty, staff, students, and possibly alumnae, this card will enable building access, library and special events services, as well as purchases on campus (bookstore, food service, laundry, vending machines, photocopying and printing, etc), Fire Alarm System management, and other capabilities depending upon the vendor.

The One-Card selection team is composed of representatives from Food Service, Special Events, Controller's Office, Student Affairs, the Library, Campus Security, Facilities Management, Purchasing, IT, Food Services/Dining, the Bookstore, student constituents, and other stakeholders as required. Phase I of the project will include capital db for SODEXO Food Service as well as munch money. Phase II will include building access, all laundry, vending, photocopying and printing. Phase III will include debit card capabilities for the bookstore, special events and library.

After researching the current vendor market, making site visits to other campuses which have operational One-Card systems, and inviting selected vendors to campus for product demonstrations, the team will provide its recommendations to the Vice President of Finance and Administration. Assuming institutional funding is identified, this project will be implemented over a three-year period.

Timeline/Tasks:

- Step 1 (completed)
    - Convene first team meeting
    - Create departmental specs and requirements
    - Perform campus site visits
    - Vendor demos
    - RFP (or other Purchasing paperwork) prepared
    - Primary vendor(s) identified
    - Recommendation to VP of Finance and Administration
- Step 2
    - Begin One-Card Project Implementation, Phase I Blackboard Food Service Module (in process)
- Date TBD
    - One-Card Project Implementation, Phase II
- Date TBD
    - One-Card Project Implementation, Phase III

Costs: Dependent on vendor(s) selected.

3.2 Web Portal Selection

A campus committee has been formed to research and assess the options for obtaining and introducing a Web Portal.

The Portal team includes representatives from the Banner Steering Committee, the Vice President of Enrollment Management, members of the Teaching Learning and Technology Roundtable (TLTR), the Director of Web Communications, students, Alumnae Relations staff, IT's Network and Systems Administrators, and other stakeholders as needed.

A portal is a user-aware, customizable entry point/doorway to selected, relevant College information. It may include network-enabling services such as Banner Self-Service, the Blackboard Course Management System, email, reporting tools, chat rooms, and calendaring. All of these would interact seamlessly with other applications for the universal SMC community (staff, faculty, and students as well as constituents ranging from prospects through alumnae).

A number of Portal products are available and in use at colleges and universities worldwide. Some of the more prominent and relevant to Saint Mary's situation include SunGard/Banner's Luminis, Oracle, CampusEAI, and UPortal. Portal use at other colleges will be researched and product demonstrations provided for the team. After taking online tours to observe several operational college portals, and inviting selected vendors to campus for product demonstrations, the team will deliver its recommendations to the Cabinet and SMC President. Assuming institutional funding is identified, this project will be implemented over a two-year period (it is generally recommended that portals be phased in but that the process be limited to two years or less). Web portal implementation should be completed concurrent with that of the Enrollment Management Suite.

Timeline/Tasks:

- Step 1
    - Convene initial meeting
    - Identify key team participants
    - Identify portal solutions relevant to SMC
- Step 2
    - Convene portal team
    - Create departmental specs and requirements
    - Interview portal vendors
    - Schedule colleague online portal tours: Xavier, Youngstown State, Dickinson, Gettysburg, College of William and Mary, Drexel, Lehigh
    - Vendor demos
    - Establish and complete a Portal Scorecard (an evaluation matrix/rubric)
- Step 3
    - Determine if portal approach is appropriate for SMC
        - If a portal approach is not selected, decommission team, or
        - Prepare RFP (or other Purchasing paperwork)
- Step 4
    - Primary vendor identified (if appropriate)
    - Presentation to Cabinet and President Mooney

- Step 5
    - Begin Portal Project Implementation

Costs:

- Software: Initial purchase
- Hardware: Initial Purchase
- Implementation
- Additional Staff (Portal Administrator)

3.3 Enrollment Management

A team composed of representative staff from Admission, Financial Aid, IT, Institutional Research, Registrar's Office, Associate Dean of Academic Affairs and first Year Studies, Purchasing and Student Affairs has been formed to consider solutions to assist the SMC enrollment management process.

3.3.1 Enrollment Management Suite

The Enrollment Management Division has requested that a committee research, acquire and implement an Enrollment Management Suite which would:

- Be compatible with Banner
- Enhance the College's communication strategies related to admission and financial aid.
- Strengthen both our print and electronic communications with prospective students, parents and current students.
- Expand the ability to personalize messages and deliver one-on-one marketing.
- Enable Admission Counselors to more efficiently manage contacts and qualifying inquiries, allowing them to focus on individuals having the highest probability of enrolling

The committee will first determine product scope and requirements. A subset of this involves collecting data about the communication styles and preferences of high school and current college students. Potential vendors will be identified and contacted for demos. The committee will also interview colleagues at institutions similar to SMC who have implemented their products. After vendor demonstrations are held, the team will recommend a vendor product(s) for Cabinet approval and implementation. The Enrollment Management Suite implementation should be completed concurrent with that of the Web Portal. A Database Administrator position (DBA) should be added to assist with this project and with all other Banner related DBA activity.

Timeline/Tasks:

- Step 1 (completed)
    - Convene first team meeting
- Step 2
    - Create departmental specs and requirements
    - Develop EM Scorecard (an evaluation matrix/rubric)
    - Contact vendors for information
    - Interview schools similar to SMC who use the vendor products
- Step 3
    - Vendor demos and evaluations on campus
    - Complete Scorecard exercise for all reviewed products
- Step 4
    - Preferred vendor identified
    - Presentation to Cabinet and President Mooney

- Step 5
    - Begin Enrollment Management Suite Project Implementation
    - Advertise, interview and hire new DBA

Costs:

- Software:
    - Phase I (Recruiting and Admissions)
    - Phase II and III (Student and Alumni)
- Hardware

3.3.2 Social Networking

Social network sites (SNSs) such as MySpace and Facebook have attracted millions of users and generally include tools such as mobile connectivity, blogging, and photo/video-sharing. A 2007 Pew Internet & American Life Project survey found that over 55% of all online American youth age 12-17 use SNSs to connect with friends and peers. As use of social networking software may enable the College to build stronger affinity relationships with our target audiences, a team has researched the related solutions to further engage current and potential students.

As acquisition of a SNS package was determined to be beneficial to SMC, the team recommended the Goal Quest product for use at Saint Mary's.

Who Needs to Be Involved:

- Enrollment Management staff
- Marketing and Communications staff
- Student representatives
- IT staff

Timeline/Tasks:

- Step 1 (completed)
    - Team selection
    - Vendor demo
- Step 2 (completed)
    - Purchased software
- Step 3
    - Inquiry module "go live" (completed)
- Step 4
    - Application module "go live"

Costs:

- The VP-Enrollment Management has indicated costs for this acquisition is currently in the budget.

3.4 Reporting Tool

A campus committee has convened to identify their administrative reporting needs and to develop a reporting tool selection and deployment strategy.

An analysis of SMC departments reveals the need for many kinds of reports, including generation of mailing lists and merges, data lists, data counts, and analytics. Since the 2000 Banner implementation, Microsoft Excel and Access have both been widely used at SMC as reporting tools but they have limited capabilities. Further, at many institutions the expertise to design and generate reports is an uncommon and sophisticated skill set and not prevalent in the workforce. Reporting tools are still not sufficiently user

friendly that users can intuitively design and generate needed reports without getting expert help. As a result, many colleges have at least one professional reporting position on staff to assist users.

Optimally the chosen tool will:

- Be Oracle SQL compatible
- Be capable of extracting Banner data
- Have scheduling capability
- Possess web delivery capability
- Have the ability to create dashboards
- Serve shared users
- Be useful to other college staff who do not routinely use Banner (i.e. Security, Bookstore, and Special Events staff members)
- Integrate with the proposed College Relations Advancement software (refer to 3.10)

SMC has four options. First, the functionality present in Microsoft Excel Pivot Tables may be a ready solution with no added costs. IT training staff will provide pilot Pivot Table training sessions to select staff and determine if this capability is sufficient to remove the need for any additional commercial reporting tool. Second, SMC owns the license for Oracle Discoverer, an ad-hoc query, reporting, analysis, and Web-publishing tool which may empower our business users with immediate access to Banner data. Our current version of Discoverer is coming to end of life soon, but the latest release of Oracle Business Intelligence Discoverer 10*g* promises new functionality, including an integrated reporting and analysis interface for relational and multi-dimensional (OLAP) data. While Discoverer may obviate the need to investigate or acquire reporting tools from other vendors, its true capabilities must be researched thoroughly by the Reporting team to determine if it should be acquired and adopted as the official campus reporting tool. Third, if the college acquires Data Warehouse capabilities form SunGard/Banner (refer to Section 3.5), the Cognos reporting tool is bundled with that module. Cognos is a powerful self-service reporting tool used successfully by many institutions and companies and we in advance of a data warehouse, we will leverage its use. Finally, if a determination is made that SMC users need a reporting tool in advance of a data warehouse then we would continue to perform product trials until an acceptable reporting tool is either identified or such a tool is deemed to be either too expensive or not on the market currently.

Who Needs to Be Involved:

- Banner Steering Committee members
- IT staff
- College division data specialists

Timeline/Tasks:

- Step 1
    - Convene first team meeting (completed)
    - Obtain requirements
    - Determine if existing Excel pivot table functionality is the solution
    - If Pivot Table Functionality acceptable, train faculty and staff
    - If Pivot Table Functionality unacceptable, proceed with search
    - Develop a Reporting Tool Scorecard (an evaluation matrix/rubric)
- Step 2
    - Oracle Discoverer Reporting Tool (campus demo) – (completed)
    - Interview schools similar to SMC who successfully use Discoverer
- Step 3
    - Determine feasibility of Discover adoption as SMC reporting tool
    - Other vendor demos (Argos, Cognos, SPSS Clementine, etc.)
    - Complete Scorecard for all reviewed products

- Step 4
    - Preferred vendor identified
    - Presentation to Cabinet and President Mooney
- Step 5
    - If Discoverer is acceptable, develop a Discoverer Project Implementation Plan OR Determine next steps in acquiring another reporting tool

Costs:

- No additional costs will be incurred if Excel pivot table use is acceptable.
- If a tool other than pivot tables is required, tool costs would be included in Section 3.5 (reporting tool bundled in Data Warehouse product).
- If a separate reporting tool is purchased, costs will include hardware and software.

3.5 Data Warehouse

A campus committee has been formed to assess the need for obtaining an Operational Data Store (ODS) and an Enterprise Data Warehouse (EDW). Both of these could be built by a consultant or acquired from SCT Banner.

The team will obtain a list of prioritized requirements from prospective users. The selected configuration must integrate with Banner.

It is proposed that a DBA be hired (see 3.3.1) to assist with the database configuration for this project.

3.5.1 Operational Data Store (ODS)

The committee will first assess the need for obtaining an Operational Data Store (ODS). An ODS is a database structure serving as a repository for current operational data formatted to make reporting easier. An ODS stores data at regular intervals (typically nightly).
The team will determine if an ODS should be acquired from Sungard, our ERP vendor. Alternatively, SMC could have an ODS built by an external consultant.

Who Needs to Be Involved:

- Banner Steering Committee Members
- CIO
- Database Administrator
- Purchasing
- College Division Data Specialists

Timeline:

- Step 1
    - Banner Steering Committee assesses SMC need for ODS
- Step 2
    - Sungard Banner demo on campus
- Step 3
    - TBD based on Banner demo results

Costs:

- Hardware
- Software
- Possible cost for external consultant to build ODS (if Sungard Banner product is not selected)

3.5.2 Enterprise Data Warehouse (EDW)

The committee will explore whether an Enterprise Data Warehouse (EDW) would benefit the institution. An EDW is an extension of the ODS and has additional capabilities. It contains detailed, historical data transformed into formats to support analytical reporting and analysis. As with the ODS, Sungard Banner has an EDW product, but one could alternatively be built by an external consultant. Importantly, the pre-built integration with the reporting tool promises to provide seamless access to the business intelligence reporting requirements which are under review in Section 3.4 (Reporting). It will be the committee's task to determine direction on this decision.

Who Needs to Be Involved:

- Banner Steering Committee Members
- CIO
- Database Administrator
- Purchasing
- College Division Data Specialists

Timeline:

- Step 1
    - Banner Steering Committee assesses SMC need for EDW
- Step 2
    - Sungard Banner demo on campus
- Step 3
    - TBD based on Banner demo results

Costs:

- Hardware
- Software
- Possible funding for external consultant to build EDW

3.6 Electronic Catalog

A representative campus committee will consider future use of the College Bulletin by the Admissions Office and others at the institution, determining the practicality of developing an electronic catalog.

The team will explore the use of bulletins (catalogs) at other colleges, specifically analyzing the generation of annual vs. bi-annual catalogs, and consider format effectiveness. Appropriate vendors will deliver product demonstrations, and a request will be submitted for the selected product in the 2010-2011 institutional budget.

Who Needs to Be Involved:

- Registrar
- Director of Admission
- Vice President-Enrollment Management
- Associate Dean (academic)
- Student Affairs representatives

- Marketing and Communications staff
- Business Office staff

Timeline/Tasks:

- Step 1 (completed)
    - Catalog team explores software products on market
    - Vendor demos
- Step 2
    - Institutional budget request
- Step 3
    - Catalog software product selected
- Step 4
    - New catalog published online

Costs:

- Software
- Annual recurring maintenance fee

3.7 Document Imaging

Saint Mary's College has successfully completed a one-year proof of concept pilot using AppXtender to image documents in the College Relations area. This document imaging solution will now be deployed in two new departments during FY 2009 (completed) and in three additional new departments in the following year.

Timeline/Tasks:

- Step 1 (completed)
    - AppXtender introduced to two additional campus departments (completed)
- Step 2
    - AppXtender introduced to three additional campus departments

3.8 Survey Tool (completed)

In 2008 a survey software tool was acquired and is being implemented in Institutional Research, a heavy user of survey instruments. IR reviewed several packages and recommended purchase of Snap Survey Software. SNAP promises more accurate tracking of survey response rates, quicker access to survey data, and to reduce survey printing costs. Its use is being offered and extended to all interested faculty and staff for no additional cost. This may enable some to move away from traditional paper survey use. The business case for product adoption is strong: the College should recover software costs from savings realized on eliminating one national print survey. Product use campus-wide begins in fall 2008.

3.9 Electronic Billing/Purchase Orders (completed)

Saint Mary's has used the Evisions Form Fusion product to print student bills since 2000. In 2008 additional Evisions options were purchased which will allow the College to e-mail student bills and load them for viewing in the Self-Service product.

These options will be implemented during the 2008-2009 academic year. After this is accomplished, SMC staff will consider the feasibility of e-mailing purchase orders directly to vendors using these options. This will be followed by deployment of the product in other departments.

3.10 Advancement Software (Capital Campaign Planning)

To prepare for a major upcoming capital campaign at Saint Mary's College, a team will explore the feasibility of implementing an Advancement Module to accommodate anticipated gift activity. IT staff and representatives from College Relations Advancement Services, Development (including Research) and Alumnae Relations will perform due diligence in determining if the campaign and the institution are best served by using a Banner Advancement software product (to be released by SunGard later in 2008) and/or by obtaining either a replacement or add-on advancement software. The proposed solution must have proven ability to increase the funds raised by strategically managing constituents and constituent data. It should further include implementation of a moves management system.

Who Needs to Be Involved:

- VP for College Relations
- CIO
- IT staff
- College Relations Advancement Services staff
- Development staff
- Alumnae Relations staff

Timeline/Tasks:

- Step 1
    - First Team Meeting
    - Determine Advancement Software requirements (collaborate with Development and Alumnae Relations)
    - Research vendors and costs.
    - On campus vendor demos
    - Determine if selected Enrollment Management software (refer to Blueprint Chapter Activity 3.3a) can provide Capital Campaign functionality
    - Determine costs (consultants, hardware, use of temporary staff, etc.)
- Step 2
    - Select vendor
- Step 3
    - Coordinate implementation schedule with vendor

Costs:

- The VP for College Relations has indicated that costs for this acquisition could be absorbed by the capital campaign budget.

3.11 Event Management Software (EMS)

Information Technology's support of the college event management software, managed by the Department of Special Events, is necessary to ensure timely and organized space reservation for internal and external constituents. Activity will be coordinated by IT and Special Events staff. It may be advisable to integrate EMS with Banner in the near future. If so, any additional integration and upgrade costs may be added to this initiative. Additionally, assistance from an SMC Banner programmer may be needed to enable the integration with Enterprise.

3.12 Creation of the Administrative Computing Advisory Committee (ACAC)

While the TLTR (Teaching Learning Technology Roundtable) assists with academic computing direction, and the Banner Steering Committee plans and supports activities specific to Sungard Banner, there is a need for an Administrative computing Advisory Committee (ACAC). This group would assist Information Technology and the CIO in setting administrative computing-related directions for future product acquisitions and implementations.

The ACAC would include representatives from the Business Office, Institutional Research, Human Resources, Purchasing, Facilities, Registrar, Admissions, Enrollment Management and others wishing to participate.

Schedule:

- Step 1
    - Meet with Cabinet to determine ACAC Membership
- Step 2
    - Convene initial ACAC meeting

3.13 Banner Steering Committee

Faculty members will be added to the Banner Steering Committee in order to address Banner module functionality.

Chapter 4
IT Services

Overview

IT Services are defined as critical operations that will affect the College over the next five to ten years. Diverse in nature, some are in large generalized categories (i.e., Teaching and Learning or Administrative Systems). Our constituents rely heavily upon some services, considering them utilities and find it difficult, if not impossible, to do business when these services are absent. Electronic Mail and Calendaring are examples of such services used by almost everyone. Collaboration utilities such as network file storage and sharing are two other examples.

Other IT Services affect our collegial atmosphere and add value to the Saint Mary's College educational experience. These include our student IT internships and Apprenticeships for seniors. Finally, some critical IT processes and functions must be delivered regardless of interruptions; these are referred to as IT Business Continuity. All of these play a role in the everyday experience we call Saint Mary's College. We must address provisioning of these items for the long term to support our faculty, staff and students whether on the main campus or internationally in Rome, Ireland, France or China.

Several IT service-related initiatives are recommended. Sections 4.1, 4.2 and 4.7 will require some funding and significant IT staff resource attention; Sections 4.3, 4.4, 4.5, and 4.6 involve minimal funding but significant IT staff attention.

4.1 Electronic Mail and Calendaring

The use of Electronic mail at the College has witnessed tremendous growth, and SMC's storage needs have increased because our reliance on and use of email has grown. This trend is expected to increase over the next decade. Calendaring is often associated with email and becomes involved in storage discussions because the software used for one often contains support for the other.

The College must invest in a long term solution to support our future email and calendaring needs. Several solutions exist that must be researched for long-term use. The possibility of offering students and alumnae "email for life" will require great planning and support before a decision is made on its adoption. Any service must be reliable, secure and highly available from almost anywhere in the world. As explained in Section 1.4, storage for needs such as this should be centralized, ensuring the greatest return on investment and resource management.

During 2008-2009 the CIO of Information Technology and the Systems group will identify which email and calendar solutions can be supported at Saint Mary's. Once those determinations are made, the involvement of everyone on campus will be required to finalize the choices. The planning for our email and calendaring project will depend upon several factors such as staffing and support requirements of the selected package. Further, it is recommended that the email and calendaring packages under consideration be limited to already purchased software. A new email and calendar package will be implemented in the next two years, after completion of the Active Directory Services project.

Costs associated with the acquisition of an email and calendaring package include a one-time purchase price and an annual recurring 20% vendor maintenance/support charge.

Who Needs to Be Involved:

- Chief Information Officer
- Director of Network and Systems Administration

- IT staff
- All SMC faculty and staff

Timeline:

- Step 1
    - Product demos
    - Product selection complete
    - Explore option of Google email for students and alumnae.
- Step 2
    - Email/calendar in testbed (within IT)
    - Active Directory Project complete
- Step 3
    - Email/calendar campus rollout

Costs:

- Estimated cost is $50,000 to provide faculty and staff with accounts (funded in 2008-2009 IT budget)

4.2 Collaboration for File Storage and Sharing

The College should invest in software and hardware products to enable collaboration for file storage and sharing. An example of how and why this is necessary follows.

The storage and sharing of documents institution-wide occur as a normal part of the business and teaching process. For example the Human Resources Department may wish to share the latest HR procedures with all constituents. These could be available on the HR website, on the HR shared network drive or via e-mail as an attachment. These three separate locations must be kept in sync so that correct information is always presented to and accessed by the end user. Similarly, faculty may share assignments or files with peers and students via Blackboard, the department file share or via email. Once again, data in all three locations must be identical for successful use. Collaboration software and hardware will allow these solutions to occur.

IT must support this model and concurrently minimize the resources used by these approaches. Optimally one file should be seen as appearing in three different places. This model reduces our storage needs, our backup times and the intricacy of the data recovery method used, if needed. In section 1.4 SAN storage planning was discussed. A SAN approach will allow different servers or services to use a shared resource and illustrates how that would be accommodated by SAN technology.

Who Needs to Be Involved:

- Chief Information Officer
- IT Systems Group
- Director of Instructional Technology
- Select faculty, staff and students as required

Timeline:

- Step 1
    - Vendor demos
- Step 2
    - Vendor selection complete
- Step 3
    - Product testbed

- Step 4
    - Introduce permanent solution

Costs:

- Cost estimates dependent on vendor chosen
- Project costs do not include storage costs in section 1.4.

4.3 IT Internships and Apprenticeships for SMC Students (ongoing)

Saint Mary's IT Department is in an ideal position to afford our graduating seniors in technology-related majors experience in a working technical environment. The ultimate goal of this initiative is to provide each selected intern with hands-on experience prior to their seeking and accepting external employment.

Working with the Career Crossings Office, which helps facilitate and manage our internships both on and off campus, effective January 2008, the Chief Information Officer is inviting all seniors with appropriate credentials the opportunity to spend one semester working with the various IT functions (Help Desk, Networking and System Administration, Educational Technology, Administrative Computing, Database Administration, and other Development Projects). Requirements and application form will be posted on the Internship website. The Communication and Performance Studies and Mathematics Departments have agreed to assist in providing related academic assistance during these internships.

Each selected intern will spend 45-60 hours during the semester working within IT. A proof of concept is in work and will be modified as needed. The first three interns just completed the program. An early indicator of program success: All three interns obtained employment, one with a Fortune 50 aerospace, one with a Fortune 50 pharmaceutical company, and the other in IT management at Yale University.

In collaboration with the Career Crossings Office, services provided by IT staff to each intern also include assistance with creation of their technical resumes and coaching on the use of successful interviewing techniques.

Who Needs to Be Involved:

- CIO
- IT Staff
- Director - Career Opportunities
- Select faculty as appropriate

Timeline:

- Process in place and ongoing

Costs:

- No capital costs anticipated

4.4 Business Continuity Planning (ongoing)

Over the past decade a number of higher education institutions have experienced pronounced and prolonged interruptions of service due to various factors (weather, human factors, etc.) Thus, the President's office has convened a campus-wide group to develop a comprehensive disaster recovery and business continuation strategy.

While plan specifics will not be posted in a public website or venue due to their sensitivity and confidential nature, all aspects of ensuring that the institution can quickly return to normal operations is being addressed. Information Technology staff and the CIO are participants in that effort.

Who Needs to Be Involved:

- CIO
- All Cabinet Members (Vice Presidents and President)
- Director of Facilities
- Director of Security
- Director of Network and Systems Administration
- Other IT staff as needed

Timeline:

- Step 1
    - Finalize campus site evaluations
- Step 2
    - Complete campus site buildout
- Step 3
    - Conduct Incident Command training for IT staff
- Step 4
    - Conduct training with other campus staff as appropriate

Costs:

- No capital costs anticipated

4.5 Division of Information Technology Acceptable Use Procedures

SMC constituents often have questions about an array of technology-related procedures, and a formal written guide should be prepared to answer them. A set of related acceptable use procedures, drafted in 2006, will be reviewed and revised in Summer-Fall 2009. Following a vetting period with the college community, these procedures will include Cyber Law considerations and be published online for easy reference by faculty, staff and students.

No funding is required for this project, but it will require attention and resources from IT staff. The new IT Acceptable Use Procedures will be posted on the SMC web.

Who Needs to Be Involved:

- CIO
- IT Staff
- Vice President and Dean of Faculty
- Vice President of Finance and Administration
- Other SMC constituents as needed

Timeline:

- Step 1
    - Revise existing document(s)
- Step 2
    - Present final document to President and Cabinet
- Step 3
    - Publish document on SMC website

Costs:

- No capital costs anticipated

4.6 Staff Training (ongoing)

Members of the President's Cabinet have requested that IT staff continue to design, develop and offer training on commonly used campus software packages (i.e., Microsoft and Adobe Suite applications, Banner modules, email, etc.). A number of training sessions have been (and are being) offered on occasion but not on a regular and well publicized basis. The Cabinet would like this campus training effort to assume a more formalized and professional presence with more frequent course offerings as well as enhanced website publicity of upcoming training events. This should encourage higher participation rates by SMC staff and faculty.

Two IT staff members have been involved in the design, development and delivery of such training to date. Additional training expertise and resources may be realized if we groom our most gifted students who are willing to (first) assist in and (later) deliver some of these courses. Such standup training experience should prove extremely valuable to these student trainers after graduation when they seek employment.

While no additional costs are anticipated to enable this initiative, it will require considerable attention from existing IT staff.

Who Needs to Be Involved:

- CIO
- Cabinet Members
- Director of Instructional Technology
- IT Banner Analyst
- SMC student interns as appropriate

Timeline/Tasks:

- Step 1
    - Develop proposed training programs for 2008-2009
    - Solicit additional training topics from Cabinet
    - Publicize training schedule to campus (faculty and staff)
- Step 2
    - Identify students to assist with standup training
    - IT staff deliver training
- Step 3
    - Create annual training schedule

Costs:

- No capital costs anticipated

4.7 IT Staff Training

The opportunity for our IT staff to become acquainted with and to master leading-edge technology concepts and techniques is critical, and Saint Mary's College is committed to ensuring they receive the formal instruction required. Fortunately the classes and technical schools of the most benefit to our staff are located in Chicago and Indianapolis, with most relevant events being 3 to 5 days in duration. Cost is a factor, with one technical training event (for one participant) costing several thousand dollars due to the sophisticated equipment and instruction provided.

- Step 1 (annual evaluation)
    - Determine IT staff training schedule
    - Submit request for travel and workshop fund
- Cost
    - IT workshops and school fees
    - Travel and lodging at workshop sites

4.8 Technology Sustainability

Integrate technology concerns and requirements into existing institutional sustainability documents. In cooperation with the Compliance Officer address the proper disposal of aging technology (PCs, printers, batteries, etc.)

Who Needs to Be Involved:

- CIO
- SMC Compliance Officer
- Other staff as appropriate

Timeline/Tasks:

- Step 1
    - Meeting (IT staff and Compliance Officer) to determine next steps
- Step 2
    - Develop new disposal procedures and documentation as needed
- Step 3
    - Meet annually to determine need for procedure changes

Costs:

- No costs anticipated

4.9 Student Hardware Requests

The 2008-09 Student Board of Governors canvassed its members and determined that printers and some computers would be useful in the following locations:

1. Student Center Cyber Cafe (printer)
2. LeMans Hall (printers)
3. Opus Hall (Printer and computer)
4. Holy Cross Hall (printer)
5. McCandless (Printer and computer cluster)

Appendices

Appendix A

Blueprint Writing Team Members

These individuals contributed to the IT Strategic Blueprint planning process and document creation:

Lorraine Kitchner, *Banner Steering Committee*

Mona Bowe, *Banner Steering Committee*

Laura Brandenburg, *Banner Steering Committee*

Kathleen Brown, *Banner Steering Committee*

Jim Herschel, *Banner Steering Committee*

Jessica Ickes, *Banner Steering Committee*

Debby Kelly, *Banner Steering Committee*

Kathleen O'Leary, *Banner Steering Committee*

Dan Mandell, *TLTR*

Deb McCarthy, *TLTR*

Ewa Misiolek, *TLTR*

Mary Gay Peltier, *Banner Steering Committee*

Michelle McManus, *IT Intern*

Janet Fore, *TLTR*

Vince Berdayes, *TLTR*

Mary Connolly, *TLTR*

Jill Hobgood, *TLTR*

Michael Kramer, *TLTR*

Julie Long, *TLTR*

Erin Scott (Student BOG rep), IT Intern

Julie Storme, *TLTR*

Doug Tyler, *TLTR*

Doug McKeown, *Administration*

Kathy Hausmann, *Administration*

Doreen Nagy, *Administration*

Dan Miller, *Administration*

Michelle Egan, *Administration*

Joy Evans, *Administration*

With Support from

Patricia Fleming, *VP and Dean of the Faculty*

Laurie Stickelmaier, *VP for Finance and Administration*

Janice Thomasson, Chief Information Officer

Appendix B

EDUCAUSE 2007 Survey Results

Survey 1: The 2007 EDUCAUSE Top Ten *IT Issues*:

1. Funding IT
2. Security
3. Administrative Systems/ERP Systems
4. Identify/Access Management
5. Disaster Recovery, Business Continuity
6. Faculty Development, Support and Training
7. Infrastructure
8. Strategic Planning
9. Course/Learning Management Systems
10. Governance, Organization and Leadership

Survey 2: The 2007 EDUCAUSE Top Ten *Teaching and Learning Issues*:

1. Establishing and supporting a culture of evidence
2. Demonstrating improvement of learning
3. Translating learning research into practice
4. Selecting appropriate models and strategies for e-learning
5. Providing tools to meet growing student expectations
6. Providing professional development and support to new audiences
7. Sharing content, applications, and application development
8. Protecting institutional data
9. Addressing emerging ethical challenges
10. Understanding the evolving role of academic technologists

Survey 3: Student Campus Technology Trends:

A 2006 student survey conducted at the University of South Carolina compared results with a similar 2001 instrument, revealing:

- Approximately 17 percent more students (99 percent of the respondents) brought computers to campus in 2006 than in 2001.
- The number of Macintosh computers rose only slightly (by approximately 3 percent, or three students). This information aids administrators and staff responsible for purchasing and supporting computers for labs on campus.
- A trend toward laptop computers is evident: almost 84 percent of computers brought to campus were laptops and 16 percent desktops in 2006 compared to 26 percent and 75 percent respectively in 2001. (Historically, desktop computers brought to campus peaked in 2001.)
- Wireless-ready computers increased by nearly 50 percent from 2001 to 2006 (from 29.6 percent to 80.4 percent).

For comparison, Saint Mary's College had the following numbers based on network registrations and ResNet Problem Report Forms in 2001 and 2008:

- *As of December 2001, 88% of Saint Mary's on-campus students had a computer connected to ResNet. (1099 students of 1243 living on campus).*

- *As of March 2008, 99% of Saint Mary's on-campus students have a computer connected to ResNet. (1316 student registrations and 1266 students living on campus. Multiple registrations per student are allowed and 12 students have two registrations on ResNet. Off-campus students may register their computer on ResNet if they wish.)*

- *As of December 20, 2001, ResNet was 93.4% Windows (1026) and 6.6% Mac (73).*

- *As of March 5, 2008, ResNet was 65.5% Windows and 34.4% Mac and 0.1% XBox.*

- *During the 2001/2002 academic year, 31.4% of students brought laptops to campus.*

- *During the 2007/2008 academic year, 95.4% of students brought laptops to campus.*

Appendix C
Changes in Instructional Technology

Changes in the students we teach:

Digital technologies have changed many aspects of Western culture, thought, and social life. Marc Prensky's "digital native" metaphor characterizes today's students, the first generation having grown up in a world shaped by computers and the Internet. Today's students think and process information fundamentally differently from previous students. Prensky and others submit that changes are necessary if "Digital Immigrants" are to teach "Digital Natives" effectively.

Changes in Teaching and Learning Technologies:

Saint Mary's College prides itself on the quality of instruction provided by the faculty to her students. Indeed, pedagogies are changing in our classrooms and support a student learning centered environment and individualized instruction. Today's technologies offer unprecedented capabilities for more effective and individualized learning and far outstrip first generation "educational technologies." They offer more individualized approaches to learning, online evaluation of achievement levels and deficits, and links to additional content areas. Learning management systems like Blackboard enable the organized use of multiple resources and modes of delivery, logical sequencing of content and to resources specifically designed to respond to the needs of specific students. Complex, real-world processes that are difficult to grasp in a traditional text-based presentation can be made more accessible through realistic simulations. Today's technologies place unprecedented resources at the disposal of students and instructors and can positively impact learning habits and teaching strategies.

Changes in our understanding of the nature of the Learning process:

Today's leading cognitive theories of learning recommend a greater focus on the needs of the individual learner. According to current cognitive theorists, learning is a process of identifying key features that define concepts and making connections between this new information and existing worldviews. Good instruction starts with the complex interface between the faculty member and the learner, building on a student's prior knowledge and experiences and adapting instruction to the individual's needs, learning styles, and interests. Some students may require additional practice in specific areas or may wish to pursue knowledge beyond course requirements. This greater emphasis on the learner's essential responsibility for learning is coupled with recognition of the learner's need to be actively engaged in drawing interpretations from learning experiences (1) starting with the learner's own world view, (2) responding to the learning environment, and (3) articulating their understanding in social interaction with other learners. The faculty member is key in this transformative learning experience. Whether using a lecture style or a discussion-centered pedagogy, the course instructor is increasingly challenged to reach the "digital natives" to reach our students, who are the digital natives.

Appendix D

Learning Spaces: SMC Advanced Technology Classroom Levels (2008)

The College's goal is to equip all general use classrooms with one of these four levels of technology:

Classroom Level	Networked Computer	Data Projector	iMedia Video Switch (Manual)	Speakers & Sound System	DVD Player	VCR Player	DVD/VCR Combo Player	Touch Panel User Interface & MPS-100 Video Switch	Audio Amplifier & Ceiling/Wall Speakers	Document Camera (in Spes Unica only)	Automated Projector Screen	Sympodiumor Smartboard Capability
Level 1 (Basic—also called an "Advanced Tech Classroom")	X	X	X	X	X	X						
Level 2 (Mid-Level)	X	X					X	X	X	X		
Level 3 (High End)	X	X					X	X	X	x	X	X
Level 4* Collaboratory/ Cluster	X (one per student)	X					X	X	X	X		

*The only Level 4 spaces are Collaboratories/Clusters

Appendix E

Learning Space Equipment: Replacement Cycles

Equipment Type:	Refresh Cycle: Replace every. . .
AV Players	4 years
Classroom Computers	4 years
Projectors	6 years
Video Switches	6 years
Document Cameras	6 years

Appendix F

SMC Advanced Technology Classroom Level Census (Fall 2008)

Classroom Level	Number of classrooms in Spes Unica Hall	Number of classrooms in Madeleva Hall *(based on Oct 2008 Renovation Plans)*	Number of classrooms in Moreau Hall	Number of classrooms in Science Hall	Number of classrooms in Regina Hall	Number of classrooms in Havican Hall	Vander Vennet Theater is equipped as	Number of classrooms in Cushwa-Leighton Library
Level 1 (Basic-Advanced Tech Classroom)	4 212, 213, 312,313	2 118, 212	0	1 B51	0	0	0	0
Level 2 (Mid-Level)	11 135, 137,140, 145,234,235, 239, 240, 335, 339, 340	19 205, 206, 207, 208, 209, 210, 211, 253, 254, 305, 306, 307, 308, 309, 310, 311, 312, 357, Carroll Auditorium	3 114, 228, 232	3 105, 132, 286	2 148, 152	3 13, 18, 20	1 Vander Vennet Theatre is equipped as a large Advanced Tech Classroom	1 Mother Pauline Seminar Room is equipped as an Advanced Tech Classroom
Level 3 (High End)	2 134, 145	0	0	0	0	0	0	0
Level 4 (Collaboratory/Cluster)	2 Collabs Room 334, (234 also wired)	1 Collab 353 2 Clusters (Room 353, 232)	3 Collab Room 324, 323, 335 Rooms double as Clusters	0	1 Collab Room 145B	0	0	1 Collab Room B11 with 20 student computers 3 Clusters (Reference Area, Trumper, and B11)
Other	2 Special Purpose Rooms (one small Lab each in Psychology & Sociology)	1 Small Group Room/Level 1 (Proposed room with six networked laptops) 2 Seminar Rms	1 Digital Imaging Lab Room 331	1 Science Cluster 134	1 Language Learning Lab	1 (Collaboratory proposed by Nursing)	0	Special Purpose: Huisking Instructional Technology Resource Center

Appendix G

Proposed Learning Space Projects

Action Item Number	Activity Description	Who Needs to Be Involved:	Costs	Status/Comments
23-01-100808	Continue updating inventory of campus learning space data and replacement cycles for all classrooms	Director of Instructional Technology, CIO, Registrar	Staff Time	Ongoing (no end date)
23-02-100808	Establish a Campus Digital Print Center : Provide enhanced color and large format printing capability for students. This capability is not available in the Clusters. (PrintLimit software will be used to leverage cost savings)	VP and Dean of Faculty, VP of Student Affairs (representing SMC-TV activity), Director of Instructional Technology, CIO, TLTR Steering Committee, Registrar, Chairs andFaculty of involved academic departments	Computers and printing equipment Remodeling and infrastructure Expendables	TBD
23-03-100808	Increase student access to printers in the Student Center, Cyber Café, Cluster-only spaces in Madeleva, Spes Unica and Moreau. (PrintLimit software will be used to leverage cost savings)	Director of Instructional Technology, CIO, IT staff	Printer costs Networking/infrastructure	TBD
23-04-100808	Add four workstations in Moreau Collaboratory Room 324, eliminating the need for students to double up.	Director of Instructional Technology, CIO, IT staff	Cost of four workstations	TBD
23-05-100808	Add a multimedia studio space and a Creative Media Arts Center (will include SMC TV) in Moreau	VP and Dean of Faculty, VP of Student Affairs (representing SMC-TV activity), Director of Instructional Technology, CIO, TLTR Steering Committee, Registrar, Chairs andFaculty of involved academic departments	TBD	Equipment list to be developed
23-06-100808	Create informal learning spaces near faculty offices (One in Madeleva near Math/Computer Science) (Two in Spes Unica near Business Admin & Economics)	Director of Instructional Technology, Chairs andFaculty of involved academic departments	Cost of computers (3)	TBD

23-07-100808	Provide practice/presentation areas in 24-hour spaces so students can rehearse presentations	Director of Instructional Technology, CIO, TLTR Steering Committee, Registrar, Chairs andFaculty of involved academic departments	Computer (number TBD) Projector Table White Board	Equipment list to be developed
23-08-100808	Research new technology-enhanced learning space models in the academy through site visits, conferences or vendor campus visits and webinars	VP and Dean of Faculty, VP of Student Affairs (representing SMC-TV activity), Director of Instructional Technology, CIO, TLTR Steering Committee, Registrar, Chairs andFaculty of involved academic departments	Staff time	Ongoing
23-09-100808	Determine how different departments use technology to teach by reviewing room and technology request records.	Director of Instructional Technology, CIO, TLTR Steering Committee, Registrar	Staff time	Ongoing
23-10-100808	Introduce tools to centralize management of all computers and classroom media equipment, enabling better classroom inventory and maintenance management.	Director of Instructional Technology, CIO, IT staff	Cost of centralized management software	TBD
23-11-100808	Upgrade older classrooms to level of Spes Unica equipment (Level 1)	Director of Instructional Technology, CIO, TLTR Steering Committee, Registrar, IT staff	Document Cameras (number TBD) User Interface	Ongoing
23-12-100808	Hire two additional IT staff to support the increase in the number of tech-enabled learning spaces. The campus currently has no Macintosh support staff member.	VP and Dean of Faculty, CIO	Cost of two staff	TBD
23-13-100808	Enable Videoconferencing and a Smart Board in the Seminar Room adjacent to CWIL.	Director of Instructional Technology, CWIL staff	Completed	Completed
23-14-100808	Establish an Art Department Print Lab	Director of Instructional Technology, CIO, Art Dept Chair	Completed	Completed
2-15-100808	Complete new classroom technology installations in Regina 141, 142, 143, 144, 147, 149, and the Dance Studio at the rate of three per year.	Director of Instructional Technology, CIO, TLTR Steering Committee, Registrar, IT staff	Ongoing	Ongoing

Appendix H

Tools for Teaching, Learning and Scholarship That Utilize the Latest Educational Technologies

Proposed Projects

Action Item Number	Activity Description	Who Needs to Be Involved:	Costs	Status/Comments
24-01-100808	Encourage and maximize the increased use of Blackboard tools (E-Portfolio, wiki,Blog, and Scholar) by faculty and students	VP and Dean of Faculty, VP of Student Affairs (representing SMC-TV activity), Director of Instructional Technology, CIO, TLTR Steering Committee, Registrar, Chairs and Faculty	Staff Time	Ongoing (no end date)
24-02-100808	Synchronize Blackboard class enrollments more effectively with the Student Information System (Banner)	Director of Instructional Technology, CIO, IT staff, external Blackboard programmer	Staff time Blackboard consultant (3 mos)	Will be scheduled TBD
24-03-100808	Standardize on the use of one classroom response system (also termed “clickers”).	VP and Dean of Faculty, VP of Student Affairs (representing SMC-TV activity), Director of Instructional Technology, CIO, TLTR Steering Committee, , Faculty	Staff time during pilot test (2008-09) Cost of response system clickers (one per student)	Pilot test is in process. Acquire and implement system choice
24-04-100808	Create a digital archival collection, leveraging access to SMC’s content-rich College Archives.	VP and Dean of Faculty, Director of Library, CIO, IT staff	Cost of Content DM or EXLibris software, Server, Scanner, and Storage Salary for Student Assistant Staff	2008-09: Create sys specs and requirements Identify optimal system and equipment costs Submit budget request Begin implementation and training
24-05-100808	Enable faculty and students to share/collaborate in research and scholarship efforts. Current file email space and bandwidth capacities limit this.	CIO, IT staff, Director of Instructional Technology	Covered in Blueprint Chapter One costs	TBD
24-06-100808	Provide a Faculty Scholarship Digital Repository, enabling post-publication hosting of faculty scholarship.	Director of Library, TLTR Steering Committee, IT staff, involved Faculty	Planning Study	Investigate models Submit budget request Begin Implementation

24-07-100808	Initiate a one-year Campus Tablet PC Evaluation Process. If successful, SMC would continue to support tablet PCs as a possible replacement for current college-funded computers.	VP and Dean of Faculty, Director of Instructional Technology, CIO, TLTR Steering Committee, involved Faculty	Cost of five Table PCs and related software	Evaluate available tablet PCs Solicit faculty proposals to participate in program Final tablet evaluation and report
24-08-100808	Investigate availability of spaces in residence halls that can serve as 24 hour preparation and practice spaces for class projects.	Technology, CIO, Director of Residence Life		No cost for investigation phase.S

Appendix I
Related Content (Saint Mary's College Strategic Plan-Institutional)

Recommendation 9
Provide High Quality and Highly Reliable Information Systems and the Infrastructure to Support Them

Information technology is more than a tool to support the administrative and educational efforts of the College. Advanced technologies play a major role in shaping the way that we learn, think, and interact. To achieve the academic distinction to which we aspire, Saint Mary's must provide fast, highly reliable and robust IT systems for our administrative offices as well as for our instructional technology and academic computing efforts.

The digital revolution, with all of its effects, is in the midst of unfolding. Only the wealthiest of institutions can attempt to keep pace with the leading edge of technological developments. While Saint Mary's has neither the resources nor the need to be at the leading edge of technological advancement, we must at least advance along with other excellent undergraduate colleges.

Several technology-related projects will benefit both administrative and academic areas of the College. These projects include: a faster data link, a content management software system to assist us in displaying timely and accurate information on our Web site, a Web portal, and a One-Card system for both security and campus purchases.

Some technology initiatives will exclusively benefit instructional and academic computing. Our students must be technologically literate. Students acquire the highest level of technological skills when those skills are required in their courses. To ensure that Saint Mary's graduates are technologically proficient, we must research, test, and use the emerging technologies. During the next five years, we hope to do the following:

1. Assess our students' technological readiness;
2. Further integrate technology in the teaching and learning environment;
3. Create an eFellows program to prepare faculty to carry out the integration described above:
4. Add 25 additional technology-enabled classrooms on campus; and
5. Create internships and apprenticeships in our own IT Office to provide interested students with intensive hands-on technology expertise prior to graduation.

Appendix J
Feedback from Blueprint Vetting Sessions

Constituent Group	Question/Remarks	Response
Student (Board of Governors) 11/12/08	BOG requests additional peripherals in these locations (rank ordered by importance): 1. Student Center Cyber Cafe (printer) 2. LeMans Hall (printers) 3. Opus Hall (Printer and computer) 4. Holy Cross Hall (printer) 5. McCandless (Printer and computer cluster)	To be considered. See section 4.9.
Faculty 11/14/08	(Information) In Appendix G: What is the location of the new informal tech learning spaces being developed near the BUEC department?	In the small unassigned room near BUAD.
Faculty 11/14/08	(Information) Chapter 3- Social networking:– Why was the *Goal Quest product* selected when the students currently use several other tools such as *My Space* and *Face Book?*	*Goal Quest* was purchased because it will exclusively used at SMC by aspirant and admitted students. *Facebook* and *My Space* do not allow this option.
Faculty 11/14/08	(Information) Chapter 2- How are we/how will we assess student technology outcomes upon graduation? Should we implement something like *Writing Across the Curriculum* and call it *Technology Across the Curriculum?*	This question will have to be addressed by the academic division. The initial assessment will only provide baseline information.
Faculty 11/14/08	Should Cyber Law awareness training be offered for students, faculty and staff?	To be discussed with the President and Cabinet. See 4.5.
Faculty 11/14/08	Chapter 3 - Explore having a faculty members on the Banner Steering Committee.	This suggestion will be implemented in 09-10.
Faculty 11/14/08	Fine tune the Banner student record system and degree audit module.	See section 3.13.
Faculty 11/14/08	Can we reconsider selling old computers that are being recycled out to members of the SMC community (i.e. faculty and staff). Also, do we know for sure that the person who is removing old computers from the campus is doing so in a socially responsible and green manner (referenced last week's 60 Minutes segment regarding toxic U.S. technology waste ending up in China)	To be discussed with the VP of Finance and the Director of Purchasing.
Staff 11/14/08	Facilities are implementing many new automated systems for the building. Should specifics about these (i.e. servers, databases, etc.) be coordinated with IT?	See section 1.6.
Staff 11/14/08	Is the Blueprint an appropriate place to place the tech standards for new buildings and renovations? It would seem useful to centralize such information in one place for easy reference.	A link will be added to the Blueprint leading to the tech standards for buildings and renovations document.
Staff 11/14/08	Will the Blueprint have a sustainability document associated with it?	To be discussed with the with the President and Cabinet. See section 4.8.
Staff 11/14/08	Does Telecomm reside in the correct area? Should the technology of the phones be with IT?	See section 1.3.
Staff 11/14/08	Based on the information from the survey/assessment (Chapter 2), how do we see the training for students, faculty and staff coming together?	This will be determined after the assessment is completed and the results analyzed.
Staff 11/14/08	(Informational) Will IT be supporting email/calendaring on cell phones and other mobile devices (iPhones, Blackberries)?	Not in the immediate future.

Staff 11/14/08	(Information) Marketing and communications have statistics regarding how people are accessing the SMC website. They have seen an increase of ipod/iphones using the site.	N/A
Staff 11/14/08	(Informational) Where do we stand on the Enrollment Management Suite? When will it be requested in the capital budget?	The Enrollment Management Suite was requested for the 09-10 fiscal year.
Staff 11/14/08	(Information) Chapter 3- A Survey Tool (SNAP) is available for use through Institutional Research.	N/A

Blueprint Projects

(Recommended implementation order by year)

Italicized project names indicate SMC Strategic Plan, *The Path to Leadership* citation

Year 1

4.4 Business Continuity Planning (no additional funding requested)

3.9 Electronic Billing/Purchase Orders (no additional funding requested)

3.1 One-Card system Selection (Phase 1) (in process)

4.3 IT Internships and Apprenticeships for SMC students (no additional funding requested)

3.10 Advancement Software (Capital Campaign Planning)

2.1.1 Evaluation of Student Information Technology Skills (no additional funding requested)

2,1.2 Student Orientation to Campus Teaching and Learning (no additional funding requested)

1.2 Networking (Phase 1: I-Light Activation) **Completed**

4.5 Revision of IT Acceptable Use Procedures Manual (no additional funding requested)

3.1.1 Event Management Software (EMS) (Phase 1)

3.3.2 Social Networking (in process)

3.7 Document Imaging (no additional funding requested)

3.8 Survey Tool (no additional funding requested)

4.6 Development of a More Formalized Campus Software Training Program (no additional funding requested)

Year 2

3.1.1 Event Management Software (EMS) (Phase 2)

2.2.2 Faculty eFellows Program (Director position funded for 08-09)

3.3.1 Enrollment Management Suite/ 3.2 Web Portal (must be completed concurrently)

4.1 Electronic Mail and Calendaring

2.2.1 Broad-based Faculty Development Initiatives

2.2.3 Faculty Innovation Grants

2.3 Learning Spaces That Facilitate the Integration of Technology into the Curriculum

2.4 Tools for teaching and learning and scholarship that utilize the latest educational technologies

1.3 Data Storage and Servers

4.2 Collaboration for File Storage and Sharing

3.6 Electronic Catalog

3.7 Document Imaging (continued)

1.1 Infrastructure

1.2 Networking

4.7 IT Staff Training

Year 3

3.1 *One-Card system* Selection (Phase 2)

3.3.1 Enrollment Management Suite/ 3.2 Web Portal (must be completed concurrently) continued

3.5.1 Operational Data Store

3.4 Reporting

3.7 Document Imaging (continued)

1.1 Infrastructure

1.2 Networking

2.3 Learning Spaces That Facilitate the Integration of Technology into the Curriculum

4.7 IT Staff Training

Year 4

3.1 *One-Card system* Selection (Phase 3)

1.2 Networking (Phase 2: POE-Power Over Ethernet) – continued

3.3.1 Enrollment Management Suite/ 3.2 Web Portal – if continuing work is needed

3.7 Document Imaging (continued)

3.5.2 Data Warehouse

3.4 Reporting (continued)

1.1 Infrastructure

1.2 Networking

2.3 Learning Spaces That Facilitate the Integration of Technology into the Curriculum

4.7 IT Staff Training

Year 5

1.1 Infrastructure

1.2 Networking

2.3 Learning Spaces That Facilitate the Integration of Technology into the Curriculum

4.7 IT Staff Training