Gustavus Technology Services Strategic Plan
May 15, 2009

The Gustavus Technology Services Strategic Plan presented in this document is a product of the efforts of a dedicated group of Core Committee members who represent technology users and services across the community of Gustavus Adolphus College. A description of Gustavus technology services, including mission, vision, goals, programs, committees and summary of past reviews serve to organize the first sections of this plan. The Strategic Plan (beginning on page 13) follows this first section. The Strategic Plan concludes with an outline for assessment of the strategic initiatives.

Section 1: Description of Gustavus Technology Services (GTS)

1.1 Mission, vision, goals for GTS at Gustavus Adolphus College

The **mission** of Gustavus Technology Services is to facilitate secure and continuous access to the vast array of technology resources used by our community. Gustavus Technology Services encourages, promotes and supports the use of leading technologies to contribute to the mission of Gustavus Adolphus College.

Vision
Technology at Gustavus Adolphus College enhances and supports the mission of the institution. Gustavus Technology Services envision a model for technology at the institution that values a *commitment to excellence*, aspires to serve and educate *all members* of the Gustavus *community*, strives to consider the *ethical and stewardship* dilemmas that are part and parcel to the continued use of technology and *supports the service* of the Gustavus community to others. We recognize that technology is one of many services that advance our educational mission and play an important role in attracting and retaining our students, faculty and staff. We envision a model of delivery of technological services that is professional, and strives to provide secure, transparent and unhindered access to the vast array of technology available locally and in the world beyond.

Goal
The goal of Gustavus Technology Services (GTS) is to employ a service and education model for secure and continuous access to technology that is as flexible as it is ubiquitous as it embraces all members of the Gustavus community, whether they be academic, administrative, student, alumni or external. The Technology Services Planning Core Committee has identified five core components necessary to achievement of the goals and mission of Gustavus Technology Services: 1) Communication, 2) Support, 3) Equipment and

Hardware, 4) Access, Security, and Infrastructure, and 5) Ethics of technology/access, use philosophy and culture.

1.2 GTS Programs at Gustavus Adolphus College

One of the greatest challenges presented when formulating the strategic plan for a technology organization is creating an accurate definition for what a technology service organization is and a unifying set of expectations for the services it should provide. The technology organization at Gustavus is no exception and the expectations for support and service among its constituents vary widely.

At the base of this expectations paradigm is the raw infrastructure that is often overlooked, but absolutely essential in making technology work. Buried in the walls, floors, ceilings and grounds of Gustavus are miles and miles of copper and fiber that form the transport mechanism for systems and people to communicate with each another. From our thermostats to the high end computing clusters communicating globally very little would be possible without the network infrastructure and smart networking that serves as the foundation for technology services.

Built upon this underlying infrastructure are the more visible services that Gustavus depends on to participate and compete in the higher education marketplace. Telephony, email, web, payroll, spam protection, general ledger, helpline, fund raising, marketing, student records, security, disaster recovery, multimedia classrooms, active admissions, active alumni, virus protection, curricular support and the support and renewal of hardware and software are all components of technology service daily support portfolio.

Finally and as evidenced by the data collected for this report, technology services will be an important and strategic component of our institutional future. As such, a viable strategic plan must not only provide a working framework for the management of today's technologies, but a blueprint for how we might best utilize future technologies.

To meet the challenges presented by the many constituencies supported by technology at Gustavus, GTS is organized into seven distinct yet interrelated areas (see organizational chart, Appendix A).

Administrative Information Systems (3 FTE)
Administrative Information Systems is responsible for the care and maintenance of all functions related to the campus enterprise system (DATATEL). The office and staff of AIS are located near their primary customers in the Carlson Administration building.

Core Services (4 FTE)
Core Services is responsible for the management, implementation and renewal of our core campus systems. This unit supports email, Moodle, Home Directory Space, IPTV and all other campus wide systems are supported by this unit. (Location: Olin Hall)

Instructional Services (2 FTE, both positions currently open)
There are currently two components to instructional technology support at Gustavus. The first is two positions (the IS Director and the Director of the Culpeper Language Center) which are part of GTS. The second component for curricular technology support is a loosely knit group of professionals (4 FTE) that are embedded in individual departments and responsible for both teaching and technology support duties. These distributed individuals report directly to their respective departmental chairs and have no formal ties back to GTS or to each other.

Media Services (1 FTE)
Media Services is responsible for all non-classroom media support for the campus. In addition, Media Services also provides media support to the College's important public functions such as the Nobel Conference, Christmas in Christ Chapel and Commencement. The Media Services office also manages a check out program for digital equipment and provides the large format printing needs of the College. (Location: Olin Hall)

Web Services (4 FTE)
Web Services is responsible for the infrastructure that supports the academic, administrative and marketing arms of our website. They work as a project team out of a single office space. (Location: Olin Hall)

User Services (6 FTE)
User Services is the most public face service within GTS. The six professional staff, supported by 40 student workers, are responsible for training, capturing, logging and first response duties for all technology service requests for faculty, staff and students. (Location: Olin Hall)

Telecommunications (3 FTE)
Telecommunications provides traditional telephony service to the campus. In addition, Telecommunications also provides billing services for another local area college (Bethany)
(Location: Olin Hall)

1.3 Committee relationships of GTS at Gustavus

Technology Services enjoys an important and vital formal relationship with the College community through the academic and administrative committee structure. The most important of these formal relationships are the Information Infrastructure Advisory Committee (IIAC), the Administrative Technology Advisory Committee (ATAC), and the Web Advisory Board (WAB).

Meeting regularly, these committees form an important and vital communications channel and sounding board for both GTS and the constituencies that these committees represent.

The committee charges, currently under review from the Provost's Office are listed below:

Web Advisory Board (WAB)
Charge
The Web Advisory Board is charged with providing recommendations for the overall strategic application of the Gustavus website as it pertains to the College's mission statement, core values, and strategic plan. The Web Advisory Board also serves as a forum to identify and discuss web-related issues that affect the campus community, and external audiences. Additionally, the Board will take a proactive role in advocating continued academic and administrative understanding and usage of the Web. Note: It needs to be noted in this report that this group has not met since April 2007.

Membership
The WAB is composed of administrators from Academic Affairs, Admission, Advancement (Fundraising or Alumni Relations), Athletics (or Sports Information), Gustavus Technology Services, College Relations, Student Affairs, three faculty members -- one each designated from the AOC, IIAC, and Faculty Senate -- and one student named by the Student Senate. Substitutes are not permitted for participation at meetings, although the meetings are open for anyone to attend.

One member of the WAB will be designated by this Board to serve on the College's overall technology committee/advisory council.

Operation
The WAB is co-chaired by the Web Communication Coordinator and will normally operate on consensus. There may be occasions when the WAB cannot come to absolute agreement on a recommendation. In this case, the Chairs reserve the right to move ideas forward that are deemed to be in the best interest of the campus with the caveat that total consensus was not achievable.

Meetings
At a minimum, five 60-minute meetings will be scheduled each academic year.
Special meetings will be called as needed.

Communication
The agenda for each meeting will be e-mailed to Board members and posted on
the WAB website prior to each meeting. Meeting minutes will be posted
following each meeting. An e-mail list-serve for the WAB members will be
created to facilitate communication.

Administrative Technology Advisory Committee (ATAC)
Charge
1. To review, recommend and promote appropriate applications of
   technology in the College's administrative areas.
2. To review, recommend and promote policies for the utilization,
   distribution and security of our institutional database and auxiliary
   administrative information systems.
3. To promote communication between technology users and the
   Administrative Information Systems and Telecommunications units of
   Gustavus Technology Services.

Membership
1. Administrators from the Administrative Information Systems and
   Telecommunications user base, not to exceed 10.
2. One faculty representative appointed to a three-year term by the Faculty
   Senate.
3. Membership also includes Director of Technology Services, Dean of the
   Faculty or designee, Vice President for Finance or designee, Dean of
   Students or designee and representatives from Administrative
   Information Systems.
4. Chair will be appointed through committee consensus

Meetings
At a minimum, five meetings will be scheduled each academic year. Special
meetings will be called as needed.

Communication
The agenda for each meeting will be e-mailed to committee members and posted
on the ATAC website prior to each meeting. Meeting minutes will be emailed to
the committee members and posted following each meeting. An e-mail list-serve
for the committee members will be created to facilitate communication.

Instructional Infrastructure Advisory Committee (IIAC)
Charge
1. To review and recommend policies and create strategic plans related to curricular, departmental, student, faculty, and other academic usage of information technology.
2. To advise the Budget Committee on long and short-term implications related to academic information technology budgeting issues.
3. To review and recommend requests beyond those funded through departmental or other funds for information technology hardware and software for faculty, academic departments, classrooms, and teaching labs to the Provost and the Director of Instructional Services.
4. To assist Gustavus Technology Services (especially Instructional Services) in the planning and implementation of information technology initiatives when they relate to academic infrastructure.
5. To promote communication among the faculty, GTS, and the Library.

Membership
1. One current member of the Academic Operations Committee, elected by the AOC.
2. One faculty representative selected by each of the five divisions of the College. These will be nominated and elected by each division and will serve staggered three-year terms.
3. The voting members will elect a committee chair. Ex officio: Provost or designee, Director of Instructional/Media Services, Library Chair.
4. Ex Officio members do not vote except as deemed necessary by faculty members of the committee.

Section 2. Strategic Review(s) of GTS
The current strategic review process was informed in a variety of ways including reports generated by and for GTS, review of important literature related to technology in higher education, online surveys targeting many of the GTS constituencies including students, faculty, administrators and staff, and twenty-four (24) open forums (see Appendix B). These open forums were conducted by members of the Core Committee with different constituent groups supported through GTS such as GTS personnel, Vice-Presidents of Gustavus, Faculty Senate, Student Senate, IIAC, ATAC, WAB, Kendall center, Library, and Curriculum Committee, Department chairs, faculty, administrators, staff, and students during the months of November and December 2008. The Co-Chairs or another member of the Core Committee conducted each meeting. Each meeting included 2-3 Core Members whose main purpose was to record the dialog of each meeting. Participants at each meeting were also invited to provide written (anonymous) feedback to the Core Committee through available written feedback instruments.

The Technology Services Planning Core Committee (TSPCC) reviewed many reports, including the *Gustavus Information Technology Review* external executive summary (2008), *GTS - Self-Study* report for the external review team (2008), *Report on the Gustavus Technology Reorganization* (2005), and *GTS Technology Strategic Plan* (2004). The strategic review was informed by review of literature regarding higher educational institutional technology such as *Student Campus, Technology Trends: 2001-2006* and the *ECAR Study of Undergraduate Students and Information Technology, 2008.*

To triangulate our data gathering efforts, we also developed survey instruments suitable for the wide audience of technology users at Gustavus (Appendix D). Separate surveys were developed for students, faculty, and administrators and support staff. We received a significant number of responses, which provided us with data to draw conclusions about the Gustavus population's feelings about technology (543 students, 77 faculty, and 97 administrators and support staff responded to the survey). These surveys included response questions targeting different aspects of technology learning and teaching using a Likert scale. Over 700 respondents completed our survey in December, 2008.

For the purposes of this strategic plan document, we also include EDUCAUSE's Top Ten Informational Technology (IT) issues for 2008. EDUCAUSE is the professional organization for IT in Higher Education. Each year it publishes annual survey results for the Top-Ten IT issues among directors of IT departments. Top-Ten issues for 2008 are as follows:

1. Security
2. Administrative/ERP/Information Systems
3. Funding IT
4. Infrastructure
5. Identity and Access Management
6. Disaster Recovery/Business Continuity
7. Governance, Organization, and Leadership
8. Change management
9. E-Learning/ Distributed Teaching & Learning
10. Staffing/HR Management/ Training

As reported by the Gustavus Adolphus College Information Technology Review (2008), security, in particular, demands an increasing proportion of IT time. The issues of 2008 on the list are essential to the basic operations of IT, and they dominate the agenda and resources of IT departments. The challenge for IT departments is to determine how to address the increasing demands of these

infrastructure imperatives while maintaining alignment with the mission of the College and the client community.

2. 1 Strategic issues for GTS at Gustavus: Review
Recent Reviews of GTS –
A number of campus technology reviews have been conducted over the past few years. For the purpose of our work, the Technology Services Planning Core Committee (TSPC Committee) reviewed materials from the three most recent studies in the years 2001, 2002, and 2008. Summaries of each of the reports are included below.

External Review of 2001
In April of 2001, Dr. J. Enos, Franklin and Marshall College, and Dr. M. Schultz, Pomona College, were invited to campus to conduct a review of the Department of Information Technology. This review was a part of the regular review process for departments reporting to the Academic Dean. The review team was directed to focus its attention on the IT program's "mission and assess its function in relation to the College mission, curriculum and support of teaching and learning" (*Gustavus Adolphus College Information Technology External Review Report*, page. 5). The team visited with staff from Administrative Computing, Media Services, the Library, the Web Team, the Vice Presidents, department chairs, and the Director of IT, as well as students, faculty and administrative staff. They were supported in their task with materials compiled by the IT staff.

Following the visit to campus, the review team presented its conclusions and recommendations on the state of IT and its relationship to the mission of the College. The team believed that IT had accomplished a great deal in a short period of time with very limited resources. The recommendations fell under several major headings with similar underlying themes in all (page 2).

The team felt that communications would be enhanced if the IT staff were more deliberate in collaborating with faculty and colleagues in decision-making and strategic planning. They recommended that an Academic Computing unit be established to work with faculty in integrating technology in the classroom. In terms of resources, they recommended that the technology expectations of the community be brought in line with available resources or visa versa. *The review team strongly encouraged the peer groups on campus (IT, administrative computing, library, media services, and the web master) "either through formal organizational structure or through clear directives from their reporting lines, to work cooperatively toward their common goals" (page 3).*

External Review of 2002

In February of 2002, the National Center for Higher Education Management Systems (NCHEMS) was hired by the College to do a review of technology at Gustavus. As in past studies, they were directed to review how IT was furthering the mission of the College. In their final report, the reviewers listed what they felt were the major issues that Gustavus IT needed to address: *1) organization and staffing; 2) priority setting, decision making, and communications; 3) campus technology infrastructure; 4) instructional technology; 5) administrative systems; 6) telecommunications; 7) media services; 8) library technology; 9) web technology; 10) planning and budgeting for campus technology; and, 11) institutional information architecture* (*Gustavus Adolphus College Campus Technology Review Final Report, National Center for Higher Education Management Systems*, September 30, 2002, page 5).

The NCHEMS team noted that six separate organizations dealing with technology reported to three vice presidents. As in the past, communication and coordination of efforts among the groups stood out as issues. The team noted that it was not clear to many on campus which office was responsible for various technology activities. The review team recommended that if the technology groups couldn't be centralized under a single director that a Technology Advisory Group, made up of the department directors and chaired by an individual outside the technology groups, be formed to coordinate the activities of the various technology-related offices. This could assist in communication issues, decision-making, budgeting, and setting policies and priorities for technology across the campus. The Technology Advisory Group would report to the Administrative Council and other advisory committees would report to the Advisory Group.

The reviewers acknowledged that the growth of technology has changed how faculty approached teaching in the classroom and how students studied and prepared for class. Support and training on the various technologies available should be a high priority and one that needed to be addressed. The reviewers noted that Gustavus was struggling with many of the same issues other similar institutions around the country struggled with.

External Review of 2008
In preparation for an external review to be conducted in May of 2008, GTS staff compiled materials documenting the technology group's reorganization and progress in adopting and responding to recommendations from past reviews.

The most recent external review of Gustavus Technology Services took place in May of 2008. The review team was made up of individuals from Macalester and St Olaf Colleges. The team had access to all previous studies and materials and the campus community for information gathering.

The review team concluded, *"Gustavus has managed its technology environment well in most ways. We noted that the availability, reliability and security of essential systems has been excellent, to the point where client expectations are that this level of service is routine…The type of dependable network and systems technology services that Gustavus has achieved is not routine and should not be taken for granted"* (*Gustavus Adolphus College Information Technology Review,* May 2008, page 2.) The team also felt that GTS was in a good position to make improvements to services offered and address concerns that surfaced. *Communication* with various campus constituencies still appeared as a major concern. The team recommended that GTS develop forums to discuss on-going community concerns. "The issue is less about technology and more about governance, planning and communication with the client community"(page, 2). *An issue the team felt needed to be addressed was support of faculty and instructional technology resource*s." This topic surfaced many times during the reviewers' visit and they strongly recommended finding a solution as soon as possible. In all, the review team felt that the technology environment at Gustavus was sound, especially given budget allocations to Gustavus Technology Services. GTS did very well with limited resources and appeared to offer services that met the mission of the College.

GTS Strategic Plan of 2004
What follows below is an "executive summary" of the priorities that surface in the four sections of the strategic plan by GTS in 2004. The eight strategic priorities are not rank ordered. The Technology Director's Group (TGD), which formulated this plan, represents six (6) technical departments and a range of campus constituencies. The TDG believes that it must avoid silo thinking by representing the entire campus and not six individual departments. The TDG therefore holds the belief that the College should move forward on these seven vital initiatives in concert, and plans to address the strategic priorities outlined as finances, time, expertise, and other resources best allow. Finally, although not listed as one of the vital initiatives below, overall budget and funding increases were necessary to realize every one of the initiatives below.

Strategic Initiatives
1. *Regular Hardware Replacement Cycle.* Achieve a four-year hardware replacement cycle and continue to consolidate the technology equipment database.
2. *Localize Curricular Support.* Adopt an instructional technologies service model to better support and assist faculty in facilitating the integration of technology into the classroom and the curriculum. This model will distribute technology support so that it is specific to the needs within each of the five academic divisions.

3. *Expand Network Services.* Expand network services in order to meet increasing demands for a variety of uses: curricular, co-curricular, administrative, and recreational.
4. *Enhance Professional Development.* Faculty, administrators, and staff, especially technical staff, must be allowed more frequent and meaningful opportunities to attend on and off campus training in new technologies.
5. *Manage Digital Assists.* Gustavus must be able to covert non-digital images, such as older student academic records currently stored on microfiche, and link the digital versions to our administrative system where applicable.
6. *Strengthen the Web.*
7. *Maintain Security.*

Background of GTS Using SWOT (Strengths, Weaknesses, Opportunities and Threats) Analysis

Strengths
- Gustavus has managed its technology environment well in most ways. We noted that the availability, reliability and security of essential systems has been excellent, to the point where client expectations are that this level of service is routine…The type of dependable network and systems technology services that Gustavus has achieved is not routine and should not be taken for granted (*Gustavus IT Review*, 2008).
- Talented and enthusiastic *staff*: staff are often characterized as responsive, with a willingness to embrace new initiatives and find solutions; eager to tackle the need to support technology's uses in teaching and learning.
- Fantastic *service*: Helpline is quick in resolving problems or willing to send someone over to help us in person. Thoughtful and thorough in responding to requests for projects….gather relevant information before deciding if they can help or not. Proactive in providing better technology for our office, often without our requesting it. Effective use of student workers (different than other colleges of our size). Students do not need prior knowledge to become part of the GTS network. (Helpline).
- Team based
- *Resourceful* and creative with limited funds. Remarkably creative and accomplish a great deal of work with the funding that they have received.
- Recognizing that there are many invisible strengths of GTS.

Weaknesses
- The three technology advisory committees (WAB, ATAC and IIAC) are not well defined, nor are they effective.
- Reactive communication between GTS and clients.

- GTS provides a level of instructional support which falls short of the demands of the faculty and what is provided by Gustavus' peer institutions.

Opportunities
- New strategic plan provides the opportunity to rebuild trust, relationships and an open, transparent and inclusive communication between GTS and the Gustavus community.

Challenges (see next section of Barriers)
One of the challenges faced by GTS as it moves to implement the strategic plan initiatives will be in communicating a forward thinking versus backward thinking or proactive versus reactive model with the entire Gustavus community.

2.2 Barriers of Current Strategic Plan for Gustavus Technology Services
2.2.1 Budget
The greatest challenge and the greatest barrier for GTS in implementing or any other strategic plan is budget. As will be noted in the following sections, the ratio of the IT budget at Gustavus to the overall institutional budget is 2.66 %. When compared to the other CLAC (Consortium of Liberal Arts Colleges of which Gustavus is not a member, but serves as a comparative resource) institutions, Gustavus would rank third from the bottom in terms of its IT budgets as a percentage of institutional budgets.

In the 2008 External Review, the team noted the fact that funding issues were mentioned in nearly every forum they attended. "Many in the community are so focused on making sure that the limited funding currently available is allocated fairly, that the bigger, more important campus discussions never reach the table" (*Gustavus Adolphus College, Information Technology Review,* 2008). It also must be noted, that many of the strategic initiatives that follow (4 year hardware and network replacement cycle, for example) are initiatives that have been part of previous external reviews (2001, 2002, and 2008) and Strategic Plans (2004) of GTS.

With a forward thinking, inclusive and enthusiastic outlook, we present the *Strategic Plan for Gustavus Technology Services* **(2009**) as developed by the Technology Services Planning Core Committee (TSPCC). The data gathering efforts detailed above and the resulting synthesis and interpretation of the documents, surveys, and meetings result in a *Strategic Plan for Gustavus Technology Services* that embrace five core ideas/themes. These five *Core Ideas* are:

- Communication
- Support
- Equipment and Hardware
- Access and Infrastructure
- Ethics of technology/access, use philosophy and culture

The following *Strategic Plan for Gustavus Technology Services (2009)* is not hierarchical in order. The core themes and ideas that represent the heart of this plan represent the ubiquitous nature that is technology and thus are interdependent, iterative and interdisciplinary.

Section 3: Strategic Goals Initiatives

3.1 *Goal 1: Communication:* Communication between GTS and the technology users it supports is critical to its future success. Indeed, communication must become an essential "checklist" element rather than an afterthought to all GTS projects. This communication should not just cover the hardware and software changes that are part of the changing technological landscape, but extend to the overall vision and directions for technology at Gustavus. Given current resources, an essential part of this communication strategy would include an active dialog with technology users to establish a set of shared expectations for the services and support that GTS can reasonably provide.

Communication and challenges of communication were brought up at many of the meetings held by the Core Committee across the varied technology constituencies in fall 2008. As noted in the external report, (2008), all previous assessments of GTS whether external or internal have underscored the importance of improving communication with GTS clients

3.1.1: Tactic 1: Reform existing technology committees. The IIAC, ATAC, and, WAB and STAC (see next tactic) should be reconstituted with clearly defined reporting structures and thoroughly prescribed roles, with emphasis on the strategic and visionary application of technology on campus. Taken as a whole, these 4 committees would represent a Technology Advisory Council (see below).

3.1.2: Tactic 2: Encourage student involvement. A Student Technology Advisory

Committee should be created to foster an ongoing dialog between students and GTS. (STAC: Student technology advisory committee).

3.1.3: Tactic 3: Formation of a Technology Advisory Council: After the IIAC, ATAC, WAB and STAC are established or reconstituted with clearly defined reporting structures and thoroughly prescribed roles, we recommend that the four advisory committees come together, at least twice a year, to envision the big picture of technology across the entire institution of Gustavus Adolphus College. This committee should be Co-Chaired by the director of GTS and another member of the faculty (IIAC?) and include IIAC, ATAC, WAB and STAC. We recommend that this Advisory Council report to the President's Cabinet. The Council should address institutional IT issues, recommend general direction, policy, and overall priorities for IT, advise and support GTS in formulating overarching goals for planning, progress and budgeting. The principles that guide the work of the Council are to be transparent in process, collaborative in nature, expedient in decision-making, holistic in scope, informed by ongoing assessment and finally anticipatory of technology for the community well into the future.

Note: Please see Appendix D, Addendum to 3.1.3: Tactic 3 for further deliberation on this tactic.

3.1.4: *Tactic 4: Continue to develop proactive system* of communication with and for GTS clients such as *Faculty l,* GTS newsletters, GTS blog, and open meetings with GTS clients.

3.1.5: *Tactic 5: Increased hours of operations for GTS helpline:* In order to better support the events and class work that occur outside of business hours, GTS should aim to staff its helpline with at least two student workers from 7:30 AM until 10:00 PM seven days a week. These student workers should be trained to be able to support the multimedia equipment in event spaces in addition to assisting with computer problems.

3.1.6: *Tactic 6: Training of GTS staff in customer relations,* specifically training that focuses on dealing with difficult people and/or situations.

3.1.7: *Tactic 7: Communication among GTS units.* The TSPCC recommends that the entire GTS staff meet regularly with a minimum of a joint meeting twice per semester. Additionally, the TSPCC believes that there would be value in organizing an annual retreat for the GTS unit.

3.2 Support: Training, Teaching, Pedagogy and Events

A critical need for instructional and event support across academic divisions, administrative areas and individuals at Gustavus was heard over and over again by the Core Committee in the data gathering meetings for this strategic plan and in the online surveys. Most notably the critical need for instructional support at Gustavus is part of every report regarding GTS that this committee reviewed, including the *External Review*, *GTS Self-Study* and *Gustavus Technology Reorganization*). The current structure and staffing at Gustavus is well structured to support a wide range of technology needs. It is not, however, well structured to support curricular and instructional technology or the wide range of regular and irregular college/private events.

3.2.1 *Tactic 1: Divisional instructional technology support with an individual technologist assigned to each division.* Our first priority is to provide divisional instructional technology support by creating a support position for each division. One theme that emerged in most of our meetings and survey instruments was that while GTS does a good job of providing reactive support to help users and departments with their current problems, GTS lacks the staffing and structure to provide proactive curricular support. There was also a desire to have a member of the GTS staff assigned to each division who would have knowledge of and keep up to date on how technology is being used in their academic field and provide continuity in supporting their long-term projects. This model is currently being employed within the Education division and has been well received. It is the position of the Gustavus Technology Services Core Committee that we should extend this model to the rest of the College by hiring an Instructional Technologist to support each of the other divisions of the College. The role of each instructional technologist would be to train their faculty in the technology being employed by academics in their field (e.g. composition and recording software for music, statistical and simulation software for Psychology, etc.) and work with faculty to develop and implement technology into their curriculum. Instructional technologists must be fluent in technology as well as learning theory and ideally would be a native of the field that they are supporting. Instructional technologists should spend a portion of their time actively following how other colleges and universities are using technology in their fields by attending conferences and communicating with their peers at other colleges. The instructional technologists should also work together to develop a training program for technology, which applies across the College (e.g. Moodle and PowerPoint.) The divisional instructional technologists are not specifically intended to replace any existing departmental technology support, and certain divisions may find

that they need additional technology support beyond the minimum of one technologist per division.

Instructional technologists should not take over the role of supporting day-to-day computer problems from the User Services group (e.g. helping with e-mail problems) but may serve as a liaison to help faculty navigate the system to someone with the knowledge to help them with their problems. During open meetings, a common theme was a need for proactive technology support from someone familiar with classroom technology and how it was being applied elsewhere in their field of study. In some cases the faculty had a clear idea of what they wanted to do but not the skills or time to implement the technology, while in other departments they knew that there was more out there they could be doing but didn't have the time to investigate their options.

3.2.2 *Tactic 2: When the college has secured an instructional technologists for each academic division, it is recommended that a senior position (SATO: Senior Academic Officer or ADIS: Associate Director of Instructional Services) be created to coordinate and guide the work of the five divisional support positions, research long term academic technology trends, and work with the faculty to determine the future direction of instructional technology at Gustavus.* The SATO or ADIS could also serve as backup for each of the divisional instructional technologists and maintain a broader understanding of how instructional technology is being used at Gustavus as well as other institutions.. The Core Committee as well as the External Review (2008) heard agreement among administrators, faculty, and staff of the need to hire someone to lead instructional technology at Gustavus. This individual will provide strategic leadership and direction for academic technology applications, initiatives, and support services across the broad spectrum of instructional technology functions; provide leadership in planning and policy related to curriculum development, and other instructional technology initiatives that facilitate achievement of the Gustavus' institutional goals; and build partnerships among campus academic support units to work collaboratively toward achievement of institutional goals that can be addressed through instructional technology. The SATO should assume an advocacy role on behalf of faculty and students in campus matters related to teaching and learning with technology, and work closely with academic divisions to ensure that their needs are incorporated into academic technology plans. This position should also provide overall leadership and direction for the academic technology support staff to ensure the most effective use of human resources with a strong emphasis on service and education.

3.2.3   Tactic 3: The offices that currently offer college event support (Media Services, GTS, Dining Services, Summer Programs, Plant Services and the Student Activities Office) should meet as a task force with the goal of identifying the events that Gustavus hosts and developing a corresponding rubric of support responsibilities for those events. Formal recommendations for how event support should be organized, funded and staffed should be made by each of the areas to their respective vice president prior to the beginning of the 2009-2010 academic year.

For the purpose of this strategic plan it is important to note that our current strategy for event support is broken and that additional staffing and funding for equipment will be necessary to address the problem. Using the model for academic support that is presented within this document it is also likely that a distributed model for event support will have the greatest opportunity for success. Areas that would immediately benefit from additional staffing and resources for event support are Media Services, Dining Services and the Student Activities Office.

3.2.4   Tactic 4: *Maintain and enhance professional development for all employees:* Faculty, administrators, and staff, especially technical staff, must be allowed more frequent and meaningful opportunities to attend on and off campus training in the use of new technologies. Benefits of such training include better teaching and research, increased productivity, increased satisfaction with the new technologies by its users, and an increased level of job satisfaction by the person(s) responsible for supporting the new technology. One theme that was common throughout the survey and open meetings was a desire among faculty to use technology more heavily in their courses, and a frustration that GTS does not provide them with sufficient training, support, or facilities to meet their vision. There was a clear demand for help from someone on the ground to help them integrate and support technology in their classes. When asked about their attitudes about technology, the most common response among faculty was "I *would use new technologies more if I had a chance to learn about them."*

3.2.5   *Tactic 5: Development of expectations of competencies or literacy in the use of technology across a variety of groups at Gustavus including faculty, administrators, students, staff and library personnel.* The competencies and basic suite of instruction would be available on an ongoing basis for students, faculty, and staff to know how to use basic programs (such as Microsoft Word, PowerPoint and Excel) in a coordinated and coherent manner so that this type of basic technology instruction could be taken out of courses. A recommendation for the expected level of competencies

should be presented by the director of GTS to the *President's Cabinet* and approved annually.

3.2.6   *Tactic 6: Creation of an administrative divisional support specialist with the primary responsibility to train and support administrators and staff in the features and functions of the administrative information system (Datatel) or other business software applications necessary for administrative personnel to complete their work.*

> **3.2.6.1** Increase the professional development opportunities for administrative users of the new and revised features and functions of the administrative information system (Datatel).
> **3.2.6.1** Establish a training space equipped with desktop/laptop computers and an overhead projection system that is reserved for employee use.

3.2.7   *Tactic 7: Increase opportunities for Administrative Information Systems and Telecommunications staff to attend more frequent and meaningful off campus training in technologies.*

3.2.8   *Tactic 8: Provide opportunities for continued student support and mentoring of learning, research and scholarship with technology.* "The Gustavus curriculum is designed to bring students to mastery of a particular area of study." Increasingly, mastery in an area of study is predicated on facility with technology, whether it be in the sciences, performing arts, or pre-professions like nursing, education or accounting. The Core Committee recognizes that GTS serves an important role in supporting our mission to engage students in scholarship, which at an undergraduate institution like ours, forms a seamless border with instruction/pedagogy.

3.3 *Goal 3: Equipment, Hardware and Network Infrastructure*
3.3.1   *Tactic 1: Development of a multi-year budget submission process for GTS that would target hardware allocations, software licenses, network and server infrastructure security for the entire Gustavus community.* The College's current yearly process for budgeting is not an effective process for planning for IT. The multi-year budget process would allow GTS to be able to set their budgets to meet their plans versus planning to meet their allocated budgets. This fundamental shift in process gives GTS the opportunity to think strategically about their work and the services they provide.
3.3.2   *Tactic 2: Bring Gustavus' IT budget into parity with Gustavus' peers, as our users expect our results to be at parity to our peers.* Nationally, schools like Gustavus spend approximately 5-6 percent of their institutional budget on

technology equipment, staffing and support. Gustavus spends approximately 2.66 percent of its institutional budget on technology and although it is an oversimplification to pretend that every problem might be resolved by bringing our number into alignment with national norms, the net effect of this under spending is everywhere. If we cannot bring Gustavus' technology budget to a level similar to its peers, we must ensure that technology expectations are lower than those of our peers.

3.3.3 *Tactic 3: Creation of 4-year-replacement cycle for computers and campus network equipment for faculty, administrators and staff.* A significant contributor to the perceived usability of technology is the robustness of the underlying hardware. Disk space, memory, and processor speed all directly impact system response time. They also impact the system's readiness for the installation of software upgrades. The 2007 Campus Computing Project reported that 83.3% of the private, four-year institutions that submitted data have a budget for the routine replacement of faculty, classroom, cluster and lab computers. As one on-line survey user noted: "We shouldn't have to present rationale to upgrade and replace old equipment; it should be obvious." This replacement cycle would also target the campus network and servers.

Administrators and staff routinely use their computers to perform the basic functions of their jobs. The current replacement cycle of up to seven years impedes their ability to adopt new technologies necessary to be effective in their jobs.

3.3.4 *Tactic 4: Increase multimedia equipment to include all classrooms including labs and seminar rooms.* Over the past years, Gustavus has built typically at least two new multimedia classrooms a year and renewed the equipment in two others. There are currently over 50 multi-media teaching spaces with nearly identical hardware and software. Priority for creating multimedia spaces was generally given to classroom spaces that accommodated larger class sizes and were subsequently heavily used. No priority was generally given to lab spaces or for smaller classrooms such as seminar rooms. During open meetings, almost all faculty identified the fact that not all classrooms and labs have projectors as a significant problem. In particular, currently almost no spaces for small upper level classes have projectors or other multimedia equipment.

3.3.5 *Tactic 5: Mobility and flexibility of workspace:* Recognition that in the new millennium, the reality of the modern academic workplace demands changes in how we conduct our scholarship and our work in governance at the College. We envision a campus where the faculty is free to use

technology in a variety of locations to enhance teaching and research with mobile computing options for all who so desire. Of course, it is our commitment to the mission of this liberal arts college that lies behind this vision, and encourages us to move forward to make laptops a non-issue. Professors felt that it was a great disservice that we do not provide laptops to all professors who request one. Those professors who did not have a laptop felt that they could teach more effectively if they could bring their own computer to class and those that had laptops could not imagine teaching without one.

3.3.5.1 Increasing mobility of commuting means that the infrastructure that supports mobility (i.e. power and outlets) will need to be updated across campus.

3.3.6 *Tactic 6: Flexibility of classroom spaces and position of technology and computing units.* The majority of classroom spaces at Gustavus have added technology and multimedia projection systems after buildings and classrooms were constructed. Teaching and learning in classrooms today require flexibility for multi-uses of the space. Faculty request spaces where use of the main projection system does not obscure or hide a white or black board. For example, a suggestion we heard in our data gathering process for this report was to possibly make, projection systems and their hardware flexible so that they can be moved to increase better visibility and sight lines in the classroom.

3.3.7 *Tactic 7: Supporting the maintenance of instruments and technology that are initially funded by external grants and/or awards by creating a GTS budget line for technology and/or equipment purchased with start up funds when new faculty are hired.* Currently, there is no mechanism in place for the maintenance of instruments and/or technology resulting from successful external grants or awards or purchased with initial start up funds (new faculty). It should be noted that in the case of most external grants, including NSF, it is assumed that the awardees' institution will maintain equipment and instruments purchased with grant funds.

3.4 *Goal 4: Access, Security and Network Services Infrastructure*
3.4.1 *Tactic 1: Expand and maintain network services*: in order to meet increasing demands for a variety of users: curricular, co-curricular, administrative, and recreational, Gustavus must provide high quality network services. The campus network and infrastructure must be maintained through a regular funding mechanism, and provide ready access to our resources.
3.4.1.1 Regularly review the external Internet connection to insure that sufficient bandwidth is available.

3.4.1.2 Support residential recreational users of technology in recognition that our residence halls and apartments must compare favorably with our competitors and the technology rich off-campus housing environments.

3.4.2 *Tactic 2: Strengthen our web resources:* Gustavus, like other institutions of higher learning, places the World Wide Web (WWW) at the core for recruiting new students, registering for classes, teaching courses, doing research, accessing library databases and catalogs, publishing documents, interfacing with administrative databases, checking our calendars, scheduling meetings, and communicating with a vast audience that may include students, faculty, administrators, donors, alumni, to name a few.

3.4.2.1 Work with the community to develop an understanding of who is responsible for creating web content. Web services currently understands its primary roll as facilitating web content rather than creating it. GTS must work with the community to help them understand that the Gustavus community is responsible for the content of the web site. Web services should work with the community to develop a culture in which the web is a living part of how Gustavus operates, constantly being updated by the community as Gustavus constantly changes.

3.4.3 *Tactic 3: Manage digital assets:* Gustavus should develop the ability to efficiently store and retrieve our growing collection of digital assets. With leadership provided by the College Archivist, GTS will work toward a campus-wide solution for digital archives and records management.

3.4.3.1 Expand and enhance a digital institutional repository/archive system that will meet the unique needs of academic departments (including the library) and administrative offices and be a place for students, staff and faculty to access student projects including film and multimedia. The GTS Core Committee recommends that GTS should provide the technology to manage the assets. The institution's digital assets themselves should be managed by a combination of the Library (for academic assets and archives of the college) and Marketing and Communications (for assets for external or internal publications.)

3.4.3.2 Gustavus must be able to convert non-digital images, such as older student academic records currently stored on microfiche, and link the digital versions to our administrative information systems, where applicable.

3.4.3.3 Develop and enhance the ability to access database of institutional research: such as how many majors are in a specific program or department (as we write different reports).

3.4.4 *Tactic 4: GTS should organize its services and support structure to whenever possible be a one-stop shop for resolution or access to technology needs* (such as Web Mail, Web Advisor, Moodle, Home Directories and class schedules) -

should this not be possible within its current space, contiguous space for GTS should be secured in a future project.

3.4.5 *Tactic 4: Increase consistency and dependability of wireless access:* As illuminated by the External Review (2008), GTS built the campus wireless network for a fraction of the cost of our peer schools. Student, faculty and administrative users reported in on-line surveys that wireless access and dependability was strained, weak or inconsistent, especially during peak hours (Chapel, late afternoons and evenings).

3.4.6 *Tactic 5: Increase and enhance data and network security:* Nowhere in our information gathering sessions or in the on-line survey did we hear about issues related to security. In fact, security as mentioned above is a strength. However, the Core Committee recognizes that as an invisible "strength" of GTS, data and network security must be ensured, continued and increased. Indeed, although security was not defined as a weakness in any of the external reports (2001, 2002 and 2008), the Campus Computing Project and EDUCAUSE both listed data and network security as the number one issue of IT departments in higher education, so it should continue to be a high priority for GTS.

3.4.7 *Tactic 6: Increase adoption within the Gustavus community, including faculty, of Course Management Systems, such as Moodle.* Our data gathering efforts found this area (of adoption) to be inconsistent across the campus community.

3.4.8 *Tactic 7: Recognition that technology needs differ depending on use and function:* for example: need for adaptive technologies for disabilities; increasing group or partnered projects and assignments that require group study rooms (in library) equipped with technology or projection systems and or sophisticated computer hook ups enabling students to work side by side using technology.

3.4.9 *Tactic 8: Recognition of cloud computing and the advantages and disadvantages of this tool.*

3.5 Goal 5: Ethics, philosophy and culture of technology use. We recognize that technology use can be viewed as that of a tool in teaching, learning, access, and efficiency by faculty, students, staff and administrators but, the use of technology also implies that we make decisions about how and for what purpose it is used. It is the decisions that we make, whether implicit or explicit, that require thinking about the ethics, philosophy and culture of technology use.

3.5.1 *Tactic 1: Deliberating on the ever changing boundaries and blurring between privacy and public information:* We recognize that technology and the face of technology is rapidly evolving. We also recognize that how technology is used across our community and its constituent groups invite discussions about how technology may jeopardize our privacy and what might be the

consequences of this loss of privacy. What role do we have at Gustavus GTS in fostering awareness into the impact of technology or its use on other people? GTS must continue to ask these questions as it moves forward and attempt to make decisions that are in lines with the values of the Gustavus community.

3.5.2 *Tactic 2: Reconciling the ever-increasing possibilities of the use of technology in streaming real-time video or pod casts of lectures or other events at Gustavus and how these technological innovations intersect with a core of our liberal arts mission of face-to-face interaction.* GTS should find ways of using technology that enhances in-class learning as well as those that help students prepare for classroom time to make use of it more effectively.

3.5.3 *Tactic 3: Distinguishing between the academic, scholarship, community and personal boundaries with the availability of mobile technology, including laptops.*

3.5.4 *Tactic 4: Becoming leaders of environmental stewardship and the use of technology.* How can technology facilitate energy and natural resource conservation (including paperless environments)?

3.5.4.1 Can we think BOLDLY about using technology: Create a public web based inventory showing what is using energy at Gustavus per circuit or device. GTS should work with Physical Plant to create smarter buildings where lighting, heating, and cooling adapt to the way the building is currently being used and energy use data is made public on the web in real time.

3.5.4.2 Using technology to promote greener methods of advertising upcoming student or faculty events (electronic bulletin boards in residential halls for example).

3.5.5 *Tactic 5: Sanity in our approach as to how we use or pursue technology:* if we can achieve smart use of technology, we'll have something to boast about as an institution, but, avoid the more is better, new is best mindset?

3.5.6 *Tactic 6: How does technology contribute to learning?* Employ a broader thinking of how do we or should we use technology for instruction and learning; and evaluation of the effectiveness of this mechanism in teaching and learning.

Section 4. Assessment

As noted in the Gustavus Adolphus College Technology Review (2008), real progress in moving toward an education and service model of technology at Gustavus may be measured by client satisfaction. Client satisfaction may be assessed with a variety of methods, including on-line surveys, open forums, self-study and external reviews.

4.1 *Use of on-line yearly surveys:* On-line surveys will be developed to determine yearly progress of GTS of the five core ideas (*Communication, Support, Access and Infrastructure, Equipment and Hardware and Ethics*)

across the various constituent users of technology including faculty and staff, administrators, and students. During the information-gathering phase of this strategic planning process, over 540 students, 75 faculty and 95 administrators and support staff completed the online surveys. As a Core committee, we are confident that completing On-line surveys will provide helpful information and assessment on our progress in meeting the tactics embedded within the core ideas. These surveys will provide additional assessment of our overall client satisfaction.

4.2 *Open forums targeting specific audiences of the Gustavus community:* The strategic planning process was informed by a series of open forums targeted to the various technology users at Gustavus. We recommend that this model of open forums continue as another mechanism to assess our progress toward the five core ideas and client satisfaction.

4.3 *Internal review and Self Study:* Internal review and self-study contribute to an understanding of the strengths and areas of improvements of organizations. Regular self study of technology at Gustavus will provide continued examination of progress by GTS in implementing the core ideas of the plan.

4.4 *External review by experts in academic technologies.* It is evident throughout this report that the *Gustavus Technology College Information Technology Review* (2008) informed our strategic planning and provided insight. As the initiatives of this Strategic Plan are implemented, we recommend external review by experts at least every 5 years.

The Strategic Plan was approved by the members of the Technology Services Planning Core Committee listed below and submitted to Provost Mary Morton on May 15, 2009:

Tami Aune, User Services
Lynn Boehne, ATAC and Admission Office
Michael Ferragamo, IIAC and Faculty
Barbara Fister, Faculty, Library, and representative from WAB
Derek Holm, Student Senate
Laura McCabe, Telecommunications
David Maas, Administrative Information Systems
Jerry Nowell, Web Services
Matt Olson, Student Senate
Kristi Reinholtzen, Registrar's Office, ATAC
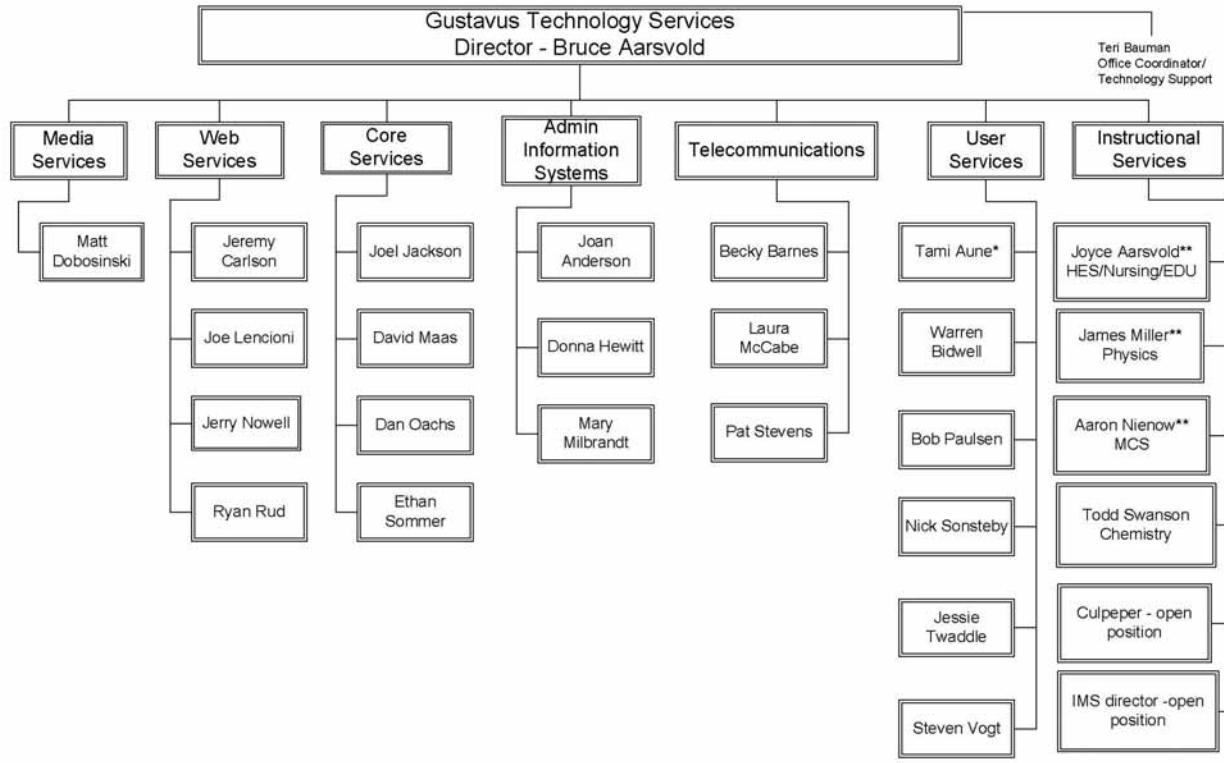Ethan Sommer, Core Services
Michele Koomen, Co-Chair, IIAC, Curriculum Committee and faculty
Bruce Aarsvold, Co-Chair, Gustavus Technology Services

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Appendix A

Gustavus Technology Services
Director - Bruce Aarsvold

Teri Bauman
Office Coordinator/
Technology Support

Media Services
- Matt Dobosinski

Web Services
- Jeremy Carlson
- Joe Lencioni
- Jerry Nowell
- Ryan Rud

Core Services
- Joel Jackson
- David Maas
- Dan Oachs
- Ethan Sommer

Admin Information Systems
- Joan Anderson
- Donna Hewitt
- Mary Milbrandt

Telecommunications
- Becky Barnes
- Laura McCabe
- Pat Stevens

User Services
- Tami Aune*
- Warren Bidwell
- Bob Paulsen
- Nick Sonsteby
- Jessie Twaddle
- Steven Vogt

Instructional Services
- Joyce Aarsvold** HES/Nursing/EDU
- James Miller** Physics
- Aaron Nienow** MCS
- Todd Swanson Chemistry
- Culpeper - open position
- IMS director -open position

* Designates Unit Manager
** Designates - report directly to Head of Department

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Appendix B

During the course of the data gathering for the strategic planning process members of the committee held 24 meetings with the different constituent groups supported by Technology Services and conducted a campus wide survey that had over 700 participants. A schedule of the meetings follows -

Meeting with Administrative Technology Advisory Committee
- Wed, Nov. 4,   Board Room   2:30- 3:30 PM

Meetings with Administrative Users
- Wed, Nov. 12   Heritage Room   9-10 AM
- Friday, Nov. 14   Heritage Room   1:30-2:30 PM

Meetings with Faculty
- Wed, Nov. 12   Heritage Room   1:30-2:30 PM
- Friday, Nov. 14   Heritage Room   8-9 AM
- Friday, Nov. 14   Heritage Room,   1:30-2:30 PM
- Tuesday, Nov. 18   President's Dining Room   10:30 AM- 12 PM

Meetings with Students
- Friday, Nov. 14   Heritage Room   1:30-2:30 PM
- Thursday, Nov. 20   Norelius Hall   7-8 PM
- Thursday, Nov. 20   SouthWest Hall   8:30 -9:30 PM
- Monday, Nov. 17   Olin Hall   (Senate) 7-8 PM

Meeting with Web Advisory Board
- Friday, Nov. 14   St. Peter Room   9-10 AM

Meeting with the Information Infrastructure Advisory Committee
- Friday, Nov. 14th   Old Main   11:30 AM – 1:30 PM

Meeting with Curriculum Committee
- Monday, Nov. 17,   Mattson Hall, 104   4:30-5:30 PM

Meeting with Technology Services
- Tuesday, Nov. 18   President's Dining Room   12:30-1:30 PM

Meeting with High End Computing Users
- Tuesday, Nov. 18   President's Dining Room   3:30-4:30 P

Meeting with the Library

- Monday, Nov. 24th   AV1   9:00 – 10:00 AM

Meeting with Fine Arts Division
- Monday, Dec. 1st   Olin Hall   4:30 – 5:30 PM

Meeting with Faculty Senate
- Wednesday, Dec. 3   Board Room   4:30 – 5:15 PM

Meeting with Kendall Center
- Wednesday, Dec.   Mattson Hall, 101   3:30 – 5 PM

Meeting with Administrative Cabinet
- Friday, Dec. 5   Leadholm   12-1 PM

Meeting with Provost's Office
- Wednesday, Dec. 10   Kendall Center   2:30 – 3:30 PM

Meeting with Department Chairs
- Wednesday, Dec. 17   Mattson Hall 101   2:30-3:30PM
- Thursday, Dec 18   Mattson Hall, 101   8:30 to 10:00AM

We conducted three surveys, one for students, one for faculty, and one for administrators and support staff. We got a significant number of responses, which provided us with plenty of data to draw conclusions about the Gustavus community's feelings about technology. 543 students, 77 faculty, and 97 administrators and support staff responded to the survey.

We also conducted several open meetings in which constituents gave free-form feedback about their current desires and the direction they would like to see for GTS.

Several themes emerged from the data.

Section 1 - **Instructional Support**

One theme that was common throughout the survey and open meetings was a desire among faculty to use technology more heavily in their courses, and a frustration that Gustavus does not provide them with sufficient training, support, or facilities to meet their vision. There was a clear demand for help from someone on the ground to help them integrate and support technology in their classes. When asked about their attitudes about technology, the most common response among faculty was "I would use new technologies more if I had a chance to learn about them."

When asked on a scale of 1 to 5 how important "Providing technology training for faculty" would be in the future, 50% of faculty said it would be very important (5) and 35% said it would be important (4.) Only 2.6% rated it a 2, and none rated it a 1. Students agreed with that assessment with 76% rating technology training for faculty a 4 or a 5.

On the same scale, 72.4% of faculty rated "Improving technology in the classrooms" a 5 and 14.5% rated it a 4.

When asked what they wanted training on, faculty were by far most supportive of training on "Educational pedagogy on how to effectively use moodle to enhance teaching and learning." Faculty do want training on computing skills, but they want training on technology's use in teaching even more.

During open meetings, a common theme was a need for proactive technology support from someone familiar with classroom technology and how it was being applied elsewhere in their field of study. In some cases the faculty had a clear idea of what they wanted to do but not the skills or time to implement the technology, while in others they knew that there was more out there they could be doing but didn't have the time to investigate their options.

When assessing how best to accomplish these goals, we drew upon the survey, discussions in the open meetings, and the models employed by other small colleges as laid out in the external review.

The survey asked which model faculty supported most strongly and there was the most support for "*Instructional and technical support within GTS that is organized by division and/or department*" followed by "*Instructional and technical support that reports to departments/divisions they support rather than to GTS.*", "*Instructional and technical support within GTS that is organized by technical function (e.g. CMS/Moodle, video, data manipulation)*", and finally "*Instructional technology support provided through the Kendall Center.*" However, of the faculty who were supportive of instructional support not reporting to GTS, 75% were also supportive of it reporting to GTS and 18% were

neutral, so we believe that there was general support for instructional support assigned by division and almost everybody would be supportive of it reporting to GTS.

Section 2 - Availability of Technology

The availability/ownership of computers and cell phones (among students) has become nearly universal. As Table 1 shows, nearly every student has a computer and a cell phone.

	Percent of computer ownership/availability	Percent of population with a cell phone or a smart phone
Students	97.8%	98.5%
Faculty	100%	Not asked
Administrators/SS	100%	Not asked

<center>Table 1</center>

During open meetings, almost all faculty identified the fact that not all classrooms and labs have projectors as a significant problem. In particular, currently almost no spaces for small upper level classes have projectors or other multimedia equipment.

Professors also felt that it was a great disservice that we do not provide laptops to all professors who request one. Those professors who did not have a laptop felt that they could teach more effectively if they could bring their own computer to class and those that had laptops could not imagine teaching without one.

Section 3 - Self assessment of technology skills and attitudes

Gustavus constituents self assessments are quite close to a bell curve distribution, with the majority self assessing at about average levels.

Respondents lean towards being early adopters and having a desire to use technology more. There appears to be a desire for more technology training/support for faculty.

	I am skeptical of new technologies and use them only when I have to	I am usually one of the last people I know to use new technologies	I would use new technologies more if I had a chance to learn about them	I usually use new technologies when most people I know do	I like new technologies and use them before most people I know	I love new technologies and am among the first to experiment with and use them
Students	1.5%	8.7%	*(not offered)*	61.2%	22.6%	5.9%
Faculty	1.3%	3.9%	35%	24%	29%	5.2%
Admin/SS	1	11.5	(not offered)	55.2%	19.8%	12.5%

<center>Table 2</center>

	Novice	1	2	3	4	5	Techie
Students	2.4%	4.3%	17.4%	37.2%	28.0%	7.8%	3.0%
Faculty	2.6%	0%	23.7%	19.7%	27.6%	21.1%	5.3%
Admin/SS	0%	6.3%	21.9%	30.2%	21.9%	11.5%	8.3%

Table 3

Faculty self identify as being more technology savvy than students.

Section 3 - Most important aspects of technology in the future

Faculty thought the following would be important in the future in order of importance: Wireless Access, Improving technology in the classrooms, Providing technical support for faculty using educational technologies, Providing technology training for faculty

Students ratings:
Wireless access, faster internet access, Improving technology in the classrooms, Providing technical support for faculty using educational technologies
Student's lowest priorities were: Offering more space for e-mail, Providing technology training for students, Offering more space for home directories, Other on-line collaboration tools

Administrators and Support staff had the following priorities:
Wireless, faster internet, tech support for students and faculty using edtech, training

Section 4 - Student Telecom direction

85% were supportive or very supportive of removing phones from dorm rooms if it would save the College money (5% were opposed and 2% very opposed.) 95% hardly ever use their phone or never use their dorm phone. Only 2% do not have a cell phone.

Appendix D

Addendum to 3.1.3: Tactic 3

Date: May 7, 2009

The Technology Services Planning Core Committee is in complete agreement as to the importance of the formation of a Technology Advisory Council and our recommendation that this Council report to the President's Cabinet. The text represents our collective vision for the Technology Advisory Council:

3.1.3: Tactic 3: Formation of a Technology Advisory Council (TAC): After the IIAC, ATAC, WAB and STAC are established or reconstituted with clearly defined reporting structures and thoroughly prescribed roles, we recommend that the four advisory committees come together, at least twice a year, to envision the big picture of technology across the entire institution of Gustavus Adolphus College. This *Council* should be Co-Chaired by the director of GTS and a member of the faculty, possibly from IIAC, and include IIAC, ATAC, WAB and STAC. We recommend that this Advisory Council report to the President's Cabinet. The *Council* should address institutional IT issues, recommend general direction, policy, and overall priorities for IT, advise and support GTS in formulating overarching goals for planning, progress and budgeting. The principles that guide the work of the *Council* are to be transparent in process, collaborative in nature, expedient in decision-making, holistic in scope, informed by ongoing assessment and finally anticipatory of technology for the community well into the future.

Addendum to **3.1.3:** Tactic 3:

There are some members of the Core Committee who would like to acknowledge that in order for the Technology Advisory Council to move from vision to implementation, it is necessary to communicate directly with one of the Vice Presidents. Because the Vice President for Academic Affairs (Provost) is charged with coordinating long and short term planning for the college at the present time, this small group recommends that the Provost be designated as the lead liaison from the President's Cabinet to the Technology Advisory Council, especially in light of the fact that GTS reports currently to the Provost. As we come to completion of the Technology Services Strategic Plan at the end of the academic year 2008-

2009, members of the Technology Services Planning Core Committee would like to acknowledge the significant changes that have occurred with the academic administration including the Vice President for academic affairs, the Provost, and both academic Deans. There is uncertainty at the time of the completion of this strategic plan as to the role and scope of the academic administration, thus, as a Core Committee we are not in agreement as to the need for a point liaison at the Vice President level to the Technology Advisory Council.