Strategic Plan for Information Technology at The College of William & Mary
2006 - 2009

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Executive Summary

At William and Mary, Information Technology continues to play a vital role in supporting the overall mission and strategic objectives of the College. There are many opportunities for enriching the teaching and learning experience at the College as well as realizing administrative efficiencies and building a robust and secure data network. Each year the College welcomes a new group of technology-savvy students who have higher and higher expectations for information services. New faculty, too, come to William and Mary requiring more complex computing support for their scholarship and teaching. In response, Information Technology periodically aligns itself both organizationally and operationally through a strategic planning process.

Four years ago, the 2002 - 2005 Information Technology Strategic Plan identified the following strategic goals:

1. Replace all mainframe-based administrative applications with client/server and web-based administrative applications
2. Develop and implement an effective security program
3. Enhance the technological capabilities in our classrooms and library space
4. Increase support for research and scientific computing
5. Implement an integrated middleware strategy to improve delivery of computing services to the campus community
6. Lead the College in the development of a comprehensive web strategy

The goals expressed in our 2002 - 2005 Information Technology Strategic Plan have been achieved and are now a part of the IT operation. Now, with a commitment to regularly extending our programs and services, we have developed a 2006 - 2009 Strategic Plan. This new plan is the result of a collaborative effort by the current IT management team with contributions from the entire division.

We are planning for seven strategic initiatives during the coming three years. Each of the seven strategic goals is summarized below, and following this Executive Summary, we specify objectives and projects for each initiative.

> **Seven Strategic Initiatives**
> 1. Enhance the Security of Information Resources
> 2. Improve Organizational Effectiveness
> 3. Enhance and Strengthen our Enterprise Systems
> 4. Integrate Technology in Teaching and Learning
> 5. Support a Comprehensive Web Strategy
> 6. Support Research and Scientific Computing
> 7. Update Data Network and Telecommunications Infrastructure

Enhance the Security of Information Resources
The campus network offers tremendous opportunities, but its openness and wide access make it vulnerable to attack. New methods of intrusion surface daily and our challenge is to outpace these threats. Our best protection is fortifying our network, providing security training to all users, setting policies and audits, and if all precautions fail, having clearly defined emergency procedures designed to minimize damage and guide the quickest possible recovery.

Improve Organizational Effectiveness
A competitive position gained only by technology is as short-lived as the next upgrade or innovation. As an organizational unit, IT must focus both on improving effectiveness and on current innovations. We accomplish this by managing costs, controlling risks, standardizing processes, and seeking best practices from many areas - not just higher education. We must look beyond the latest tools and consider how we can improve the way we do business internally.

Enhance and Strengthen our Enterprise Systems
With our core systems now integrated, our challenge is to keep these systems aligned with rapidly changing information technology needs. As we plan for the future we must keep our definition of "enterprise system" flexible so other systems can be included as needs arise. We must also shift our vision solely from productivity to aligning these systems with our business requirements, while balancing issues of access and security. One of our greatest strategic challenges is to remain vigilant for innovations in technology and practice and not to consider our work accomplished with a single solution.

Integrate Technology in Teaching and Learning

Technology is not a luxury - it is a key infrastructure component. Smart classrooms and instant web access are expected by our technology-savvy students. To continue to attract the best and the brightest students we must offer the latest in learning technology. We have adopted many tools, but cannot rely solely on these to maintain our edge. Continually exploring new technology isn't just an option - it's a necessity.

Support a Comprehensive Web Strategy

W&M now uses the web to communicate with the entire campus community, to develop relationships with external constituencies, and as a service gateway. The W&M web is a primary tool for disseminating information, and with each year our audience of students, prospective students, faculty, staff, alumni, and potential donors grows. Our strategy for the coming three years must include a revised assessment of these audiences and a plan for delivering content to engage and inspire them. Even more important, as we expand our infrastructure and our audience, unless carefully managed we risk falling into chaos and inefficiency, and jeopardizing the success of our first three year plan.

Support Research and Scientific Computing

IT has an opportunity to assume an important partnership role in W&M's strategic goal of expanding scientific research. As we plan our strategy for participating in this initiative, we can use several reports as guides to the required capabilities and inherent challenges. Our success hinges not just on technology, but on facilitating communication with all participants.

Update Data Network and Telecommunications Infrastructure

Our current PBX and voice mail systems, installed in 1989, are serviced by a third party vendor with vintage parts. These systems have been maintained and are reliable, but the technology is older than most W&M students. Other areas of the infrastructure will be due for an upgrade soon. A simultaneous and comprehensive system upgrade allows us the greatest leverage of costs, personnel and system capabilities.

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Seven Strategic Initiatives for 2006 – 2009

Strategic Initiative 1
Enhance the Security of Information Resources

Our robust network and high-speed Internet service provide tremendous opportunities for faculty, staff and students to conduct research, collaborate with colleagues worldwide, and conduct College business. This wide access, however, leaves our network, our servers, and our workstations vulnerable.

Losses can be caused by viruses, service attacks, exploitation of software and operating system vulnerabilities, and attempts to corrupt, steal or otherwise abuse College information. New methods of attack surface daily. To meet this challenge, Information Technology must be proactive, constantly upgrading our defenses, reviewing access controls, updating equipment and software, and vigilantly enforcing security policy.

Objectives

- Provide secure network access from off-campus locations.
- Expand the Risk Assessment Plan to include: Security Audit Procedures, Emergency Response Plan, Disaster Recovery Plan, Minimum Security Standards, and Security Incident Response Plan.
- Establish Security Audit Procedures for all Information Technology servers.
- Create an Emergency Response Plan outlining procedures for managing a severe security intrusion.
- Conduct regularly scheduled tests of our Disaster Recovery Plan.
- Develop and enforce security baselines for all workstations and laptops.

Projects

- Implement Minimum Security Standards for all network servers to enhance security and reduce intrusion risks. A new Security Engineer, along with the Windows and Unix Engineering teams will develop standards with assistance from other server administrators. Our standards will reflect industry-accepted practices such as those of SANS (SysAdmin, Audit, Network, Security) Institute.

- Implement Network Audit Procedures, including processes and a schedule, based on the Minimum Security Standards. Also, securely retain audit results making them accessible to authorized individuals only.

- Create and fill a Security Engineer position responsible for enhancing information security.

- Implement a Virtual Private Network (VPN) providing secure, encrypted access to the network from off-campus locations, and develop tools and guidelines governing system use.

- Conduct regularly scheduled disaster recovery testing of redundant storage. Maintain and share test result records with authorized individuals.

- Develop and implement a Security Incident Response Plan to govern security intrusions. This plan will include procedures for investigating attack methods, securing systems, and restoring access. IT will consult with University Relations to draft policies for communicating with the public and with those affected.

- Implement a security training program for everyone with access to sensitive data - social security numbers, financial aid information, enrollment data, etc. Give security high priority and emphasize the importance of protecting critical data and current methods for preventing loss.

- Implement and enforce wireless encryption. IT engineers will investigate and test client requirements and develop a communication plan. Initially, we will support both unencrypted and encrypted access; however, a timeline for phasing out unencrypted wireless access will be drafted.

- Design and implement a Minimum Security Baseline by user role. Analyze risks versus necessary functionality and access. Use CIS-NG Scoring Tool to analyze computer deployments to validate our configurations.

Strategic Initiative 2
Improve Organizational Effectiveness

In *IT Doesn't Matter* [Harvard Business Review, May 2003], Harvard Business School Professor Nicholas Carr argued that, as availability has increased and costs decreased, information technology has matured. Carr argues that to manage it effectively requires new techniques. In the past, institutions spent heavily on infrastructure to enhance their competitive positions, but these days a competitive position gained only by technology is as short-lived as the next upgrade or innovation.

To be competitive in this new world, IT management must focus on improving organizational effectiveness. We accomplish this by aggressively managing costs, controlling risks, standardizing processes and procedures, and becoming more transparent. At W&M we must shape a culture that consciously integrates best practices from many areas – not just higher education – and invests in staff development, rewards flexibility and responsiveness, and builds on our new direction as a restructured university. Working with technology, our goal is to look beyond the latest tools and consider how we can add to the effectiveness of every facet of our organization.

Projects

- Expand our philosophy of "Three Service Levels" by: reviewing new projects and initiatives; developing project agreements and memoranda of understanding - particularly for level three partnerships; implementing project management methods that include quality and customer satisfaction measurements; and clearly communicating services.

- Respond to new and emerging technologies by: creating a flexible structure that enables freer workflow; pursuing appropriate professional development opportunities; and communicating which IT resources are dedicated to this project.

- Define the IT role in our new status as a restructured university by: developing a different relationship with the W&M Board of Directors; supporting the Project MAST Steering Committee transition to a Strategic Initiatives Committee; and completing a comprehensive set of IT policies and standards.

- Support IT staff by: recognizing excellence; and encouraging participation in projects that build skills and increase job satisfaction.

Objectives

- Measure quality and customer satisfaction and tie activities to these metrics.
- Plan schedules and budgets based on performance and prior agreements. Communicate and periodically review and renegotiate these plans with all parties.
- Identify best practices from many areas, and clearly define project roles and responsibilities of all involved.
- Adopt a process of continuous improvement with the goal of better understanding and streamlining technical processes and documenting results.
- Transition the Project MAST Steering Committee to a Strategic Initiatives Committee as a means of building the relationship between IT and Senior Administration.
- Build an infrastructure and culture supporting adopted efficiency methods, practices, and procedures with the goal of the succession of organizational intelligence.

Strategic Initiative 3
Enhance and Strengthen Enterprise Systems

With our core enterprise systems - student, financial aid, finance, human resources, and facilities - successfully integrated, our challenge now is to keep them aligned with our rapidly changing needs. In developing a strategy for our immediate future, three issues become apparent.

First, it is clear that most departments - not only the core systems - have information needs beyond a single ERP solution. Recognizing this reality, our definition of "enterprise systems" must be flexible enough to include other areas as needs arise.

Second, to successfully prepare for our future, a shift in vision must occur. Rather than tie our goals solely to issues of productivity, we are compelled to think in terms of aligning our enterprise system with the business requirements of the College. As we enhance our core systems, add software, and improve internal business operations, we must initiate a move from a transaction-processing environment to one that is customer-based and driven by interactions and relationships. To accomplish this shift, we must evolve our systems beyond merely supporting business operations to intelligently integrating customer-driven applications. Shifting to a customer-driven vision poses the following challenges:

- Technology solutions must be wed with changes in process and practice.
- Collaboration between IT, College departments, and Senior Administration must become standard practice.
- Reliability and satisfaction measurements need to be automated.
- Professional development must be in sync with technological change.
- Cooperative relationships must be built with vendors to assure smoother system implementation and support.
- Privacy protection must be guaranteed by system controls and consistent oversight.

Projects

- Collaborate with SunGard and other Commonwealth colleges and universities on real-time integration of eVA and Banner.
- Implement the Banner Fixed Assets module.
- Implement the FAMIS Capital Projects module.
- Collaborate with Auxiliary Services on an eCommerce solution.
- Develop a task force on document imaging and storage responsible for conducting a campus-wide needs assessment and recommending a solution.
- Plan and implement a strategy for accessing legacy data through enterprise systems (e.g., ODS and ePrint).
- Synchronize data between Banner and Advance, and incorporate Advance data in ODS.
- Develop API integration in myWM for Banner, Advance, and FAMIS.
- Develop an Environmental Health and Safety program to track use of hazardous materials and safety incidents/accidents.
- Research Space Management, Events Management, Workflow, Decision Support, and Customer Relationship Management solutions.
- Use multimedia tools to enhance web-based training programs and documentation.
- Improve internal EIS operations by reevaluating task management tracking solutions and change management procedures.

Third, integration and access will continue to be key issues. Integration in the future must extend beyond data synchronization to complex, real-time web interfaces. Access must include enhanced data storage and retrieval systems and single sign-on access to multiple systems. Controlling individual access to data and applications based on roles and the "need to know" promotes system transparency for the customer, but its simplicity requires a high degree of complexity. As we work to transition to a customer-centered vision, these issues will add constraints to the flexibility and openness of our systems - increasingly, our job will be one of balance.

Thinking of information as a strategic resource is paramount. As we shift our focus, we face many challenges. One of the greatest is to remain vigilant for innovations in technology and practice and not consider our work accomplished with a single solution. Along with our many objectives, we must consistently aim to strengthen our systems, our services and our business operations.

Objectives

- Strengthen our core systems while expanding our definition of "enterprise" to include all administrative systems.
- Effectively use all systems to support restructuring.
- Develop web-based projects to complement our Enterprise system.
- Streamline workflow by reducing duplication of services and data.
- Strive for a paperless campus by switching to integrated, electronic business transactions.
- Build an interoperable, transparent service-oriented architecture with real-time integration and data presentation.
- Establish the Operational Data Store (ODS) as the single enterprise data repository while expanding its use and functions.
- Establish customer satisfaction and efficiency metrics to measure whether resources and projects meet business objectives.
- Support continuous learning for all with Internet based training and documentation for system users, and advanced skill development for IT and knowledge workers.

Strategic Initiative 4
Integrate Technology in Teaching and Learning

Information technology is no longer a luxury for colleges and universities - it is a key infrastructure component as vital as a classroom or a library. Almost all schools offer smart classrooms, high-speed Internet connections and instantaneous web-based access to learning resources. Students enter college with a level of technical proficiency impossible only a few years ago. As sophisticated technology consumers, student expectations are now high.

To attract the most creative and engaged students in this "digital generation," we must offer the latest technology designed to enrich learning. Reliable network connections, high quality projection in every classroom, ubiquitous wireless, and Internet tools like Blackboard are already a part of the fabric of our learning, but we cannot rely solely on these innovations. Rapid change is a reality in our environment. Continually exploring new learning technologies is not just an option, it's a necessity. Six broad areas require our attention.

Support research projects
Our infrastructure must enable junior and senior students from all disciplines to participate in research projects as part of the SACS Quality Enhancement Plan. (We define the term "infrastructure" in its broadest sense to include hardware, software, training and ongoing support.)

Integrate rich media into teaching and learning
The definition of minimum literacy has expanded beyond text to include the ability to interpret, explain, and manipulate images and audio. Our infrastructure must enable faculty and students to seamlessly integrate rich media into assignments, teaching, and research. And we must elevate students beyond this new level of literacy.

Develop faculty skills
Our technology must assist faculty in learning new skills.

Engage students in learning
Students learn best when engaged. Instant messaging, iPods, and mobile wireless devices have proven to engage students socially. Our challenge is to lead students to use these tools to excel academically.

Encourage collaboration
Employ social software tools - blogs, wikis, shared bookmarks, and bibliographies - to motivate student collaboration across the hall or around the world.

Projects
- Integrate the Technology Integration Program (TIP) as a multi-year initiative to advance academic computing. Program objectives address both student expectations and changes in disciplinary teaching and research reshaping scholarship in our departments and programs. TIP has four components: 1. a faculty grant program to fund innovative use of technology; 2. a student fellowship program that pairs students and faculty on technology-related projects; 3. an expanded and revitalized Faculty Digital Center; 4. additional cooperative programming with the Charles Center.

- Implement academic components of myNotebook by collaborating with departments to better understand notebook capabilities, and determining a means to supplement in-classroom power and resources to support in-classroom use.

- Establish a college-wide Faculty Technology Advisory Committee to identify emerging technology support needs and ways to align IT with the academic process.

- Evaluate and update the department liaison model created in 1998 to accommodate current trends and needs.

- Create a sustainable instruction and research support model as sponsored research - primarily in the sciences - is projected to double in the next few years. To meet this coming demand for support, IT must analyze needs and potential users and craft a flexible solution adaptable for all sponsored research.

Objectives

- Extend the myNotebook program by integrating computing into the curriculum.

- Provide a unified framework for educational technology and assemble a "Technology Toolbox" of web-based tools and instructions for faculty to use to quickly create multimedia presentations supporting classroom lessons.
- Collaborate with the Committee on Academic Space Planning on a long-term budget to fund our expanding technology and infrastructure needs.
- Support technology in the classroom by: expanding the lab/classroom team so troubleshooting, maintenance and training are readily available, and coordinating with capital outlay to ensure facilities are properly prepared and easy to use.
- Collaborate with Swem Library staff to expand multimedia and rich text products.

Strategic Initiative 5
Support a Comprehensive Web Strategy

W&M now uses the web to communicate with the entire campus community, to develop relationships with external constituencies, and as a service gateway for College business. Our accomplishments from the past five years include: easier and more efficient web publishing, a streamlined web infrastructure, a successful campus portal, and well-articulated support for web projects. These accomplishments now serve as our foundation for the goals outlined in our 2006 - 2009 Strategic Plan.

Although we have been remarkably successful, expectations for our department rise rapidly. To continue to successfully meet these demands we must have a well-articulated web strategy. Current expectations are:

- interactive, service-based content delivered with images, video, and podcasts.
- that the Web be used as a community incorporating the latest social software such as blogs and wikis (a.k.a., Web 2.0)
- a transition from the traditional webmaster-governed web to a "collaborative" web where content is bundled with infrastructure and technology-based tool kits.

Our web is a primary tool for disseminating information, and with each year our audience of students, prospective students, faculty, staff, alumni, and potential donors grows. Our strategy for the coming three years must include a revised assessment of these audiences and a plan for delivering content to engage and inspire them. Even more important, as we expand our infrastructure and our audience, unless carefully managed we risk falling into chaos and inefficiency, and jeopardizing the success of our first three year plan.

Objectives

- Develop a strategy for establishing web communication as an institutional priority.
- Assign responsibility for guiding the development of an institutional web strategy to the Strategic Initiatives Committee.
- Use the communication, collaboration, and community features of the web to strengthen W&M initiatives and commitments.
- Delegate the execution of our web presence to a working group of representatives from various campus constituencies.
- Set standards and guidelines supporting departmental use of the W&M web. Evaluate our compliance with accessibility standards specified in Section 508 of the Rehabilitation Act and with "Web Content Accessibility Guidelines" from the World Wide Web Consortium (W3C).

Projects

- Identify and implement a comprehensive solution for web analytics to capture statistics and site navigation patterns for guiding decisions.
- Develop web tools and templates that enhance the functionality of department sites and provide easy-to-use solutions for social and interactive Web use (e.g., RSS, podcasts).
- Evaluate web-based tools and applications built by IT to assure their accessibility and ease of navigation using common screen readers and other software used by those with disabilities.
- Expand myWM services to increase customized access to web-based applications and support an even broader representation of our community. Extend myWM to support student recruitment and orientation, provide services for prospective students, and offer rich and interesting content for alumni.
- Design and deploy campus services for blogs, wikis, and other social software.
- Lead a web assessment team gathered to assess the current home page (www.wm.edu) and accompanying top-level pages.
- Following the web assessment, participate in a comprehensive project to redesign the W&M web site at www.wm.edu (i.e., recommend a new design, navigational elements, and information architecture for the site).
- Recommend and design web tools to support initiatives of our senior administration. Specifically, use technology to reach and educate students on alcohol awareness and sexual assault prevention; and establish a web community for campus discussions on topics such as diversity and commitment to public higher education.
- Create a central web and database consulting service to design and develop web sites related to faculty grants and research.

Strategic Initiative 6
Support Research and Scientific Computing

Expanding the quantity and quality of undergraduate, graduate, and faculty research in the sciences is a strategic goal for the College. Jack Wilson, former Professor of Physics and Provost at Rensselaer Polytechnic Institute, notes that important scientific research is impossible these days without computers, networks and technology support staff. IT staff have an opportunity to assume an important partnership role in academic research by planning, implementing and evaluating data requirements of basic and applied research projects in virtually every discipline.

Research computing is changing rapidly and demands specific capabilities. Requirements taken from the UC Berkeley Strategic Plan are also relevant for William and Mary:

- Increased focus on interdisciplinary research by faculty and funders and a heightened emphasis on multi-campus research programs and projects.
- Increased priority of research collaborations with industry.
- Greater requirement to provide secure, authorized access to systems for off-campus, collaborative users and escalated reliance on high-throughput computing.
- Broadened utilization of high-bandwidth networked computing capability.
- Elevated requirements for sophisticated visualization, simulation, and modeling software and growing need to manipulate, mine, and archive increasingly large databases.

> **Projects**
> - Build the infrastructure and hire professional staff for a center of excellence in high performance computing.
> - Install equipment and negotiate service contracts to connect to Eastern LITE, Hampton Roads regional computer grid.
> - Install equipment and negotiate service contracts to connect to the National LambdaRail.
> - Develop a plan to provide the "massive data storage" capacity required by researchers across disciplines.
> - Design and implement a support model for the new visualization lab in Swem Library.
> - Implement single sign-on for off-campus researchers through Internet2's Shibboleth program.

In 2002, the National Academies of Science released a report entitled *Preparing for the Revolution: Information Technology and the Future of the Research University* [National Academies Press, 2002]. This report summarizes the results of a two year study assessing the impact of new technologies on research universities. The report identified pressures universities were likely to face in the planning period, including obvious changes in hardware capacity, software complexity, network speeds, and institutional responses to changes in funding, intellectual property, and human resource needs.

University strategies should include: the development of sufficient in-house expertise among faculty and staff to track technological trends and assess various courses of action; the opportunity for experimentation; and the ability to form alliances with other academic institutions as well as with for-profit and governmental organizations.

We are in the early stages of significantly expanding our research capacity. This expansion is triggered by the construction of the Integrated Science Centers and by the stated goal of the Vice Provost to double sponsored research in the next decade. The Discovery Center and New Town and our status as a restructured university will also have positive effects. Supporting expansion requires communication between groups from both the sciences and other disciplines to:

- Monitor technological changes and anticipate and address technological requirements.
- Leverage buying power to reduce costs to researchers and departments and decrease technology implementation time.
- Identify and address crucial issues, challenges, and opportunities for the research university and the broader higher-education enterprise.
- Evaluate effectiveness of current support models and feasibility of implementing new models.
- Pilot new models where appropriate. Disseminate results of successful tests and integrate findings in production.

Objectives

- Determine feasibility of creating a secure, shared facility with multiple servers.
- Examine opportunities for expanded operational support for high performance computing.
- Connect to emerging regional and national high-speed research networks.
- Seek funding and organizational models supporting specialized applications and research facilities.
- Study the possibility of establishing multidisciplinary "centers of excellence" in areas such as visualization or bioinformatics.
- Study mechanisms to allow off-campus, collaborative users secure, authorized access to technology resources.

Strategic Initiative 7
Upgrade Data Network and Telecommunications Infrastructure

Telecommunication

Our Private Branch Exchange (PBX) system, installed in 1989 to support over 5,000 telephone lines, now has 1,500 lines dedicated to fire and intrusion alarms, HVAC controls and outdoor emergency telephones, with the remaining lines split between digital office telephones and analog lines in student residential areas. Voice messaging is offered as a centralized service for more than 8,000 mailboxes.

The vendor support for our PBX ended when the manufacturer discontinued the product line. Both the PBX and the legacy voice mail system are serviced through a third party vendor with an inventory of 'vintage' spare parts. These systems are reliable and meet current needs, but the technology is older than most W&M students and the inventory of spare parts is dwindling. It is time for these systems to be replaced.

Data Network

Over the past 10 years our data communication network has become a major asset, integral to all daily operations. Essential resources -- access to administrative and student data, email, Internet, library information, classroom technologies, and research data -- depend on this robust and secure network.

> **Projects**
> - Conduct student and administrative surveys to evaluate the impact of discontinuing residential phone service.
> - Develop a project plan for replacing telecommunication and voice mail systems.
> - Develop a project plan for replacing network electronics.
> - Develop a funding plan for all replacement projects.
> - Evaluate technical options and write PBX system specifications in preparation for vendor selection.
> - Evaluate technical options and write network infrastructure equipment specifications in preparation for vendor selection.
> - Upgrade core data network infrastructure to 10gig/sec and implement Quality of Service (QoS).
> - Replace remote office and off-campus routers with IP telephony-capable products.
> - Pilot potential replacement system(s) in Information Technology and other selected departments.

The original data infrastructure built in 1996 included the fiber and copper cable plant, electronics and CATV system.

- The fiber optic and copper cable plant is standards based. The plant has been properly maintained so it should be serviceable for several years.
- The electronics were refreshed in 2002 to meet demand and to support wireless access. However, the status of the electronics product line is similar to that of the PBX. Although currently maintained by the original manufacturer, the line has been discontinued and should be replaced to avoid loss or interruption of communications services. These components have a projected life cycle of four to five years. Given this timeframe, our data network will be due for a significant upgrade within two years.

Telecommunication and data network systems were operated separately when ours were originally installed. New technologies such as IP telephony (VOIP), network convergence, and integrated messaging dictate that replacement projects be implemented simultaneously. A comprehensive system upgrade will allow us to leverage costs, support personnel, and system capabilities.

To initiate this upgrade and replacement project, funding sources should be defined in conjunction with the development of the technical specifications. It is also important to note that such projects were previously viewed as capital expenditures. Changing technologies and the rapid development of newer, smarter electronics mean shorter equipment life expectancy. Most institutions now view network upgrades and replacements as operational, rather than capital, expenses.

Objectives

- Determine the viability of discontinuing traditional phone service to residence halls, as the majority of students now use cell phones.
- Replace our legacy PBX and voice mail systems with a modern telecommunications system offering enhanced services.
- Deploy a modern network infrastructure supporting IP telephony, gigabit Ethernet to the desktop, and enhanced protocols such as IPv6.
- Establish a business model reflecting our commitment to viewing telecommunications and network infrastructure upgrades and replacements as ongoing operational expenses.

III

Summary

The accomplishment of the seven strategic initiatives outlined in our 2006 – 2009 Plan will allow us to achieve a vision of excellence that is consistent with W&M's institutional strategic plan. We note that our strategic planning exercise revealed a number of fruitful partnerships for the coming three years. Collaboration is acknowledged throughout this report, and a continuation and development of internal and external partnerships is critical to success.

We are energized by the transforming effect that information technology will have on our institutional mission. And, we welcome the opportunity to support the faculty, students, and staff at W&M who rely on our services. Support at every level - hardware, software, training, and human expertise – will be key to the ongoing application of information technology at William and Mary.

This plan has outlined seven strategic initiatives and 57 specific projects that will guide the College's investment. Successful execution of these projects will position W&M to become a leader in absolute terms in the development and use of information technology. The next three years will be critical for building upon the foundation we have in place.

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