



**McCOMBS SCHOOL
OF BUSINESS**
The University of Texas at Austin

The McCombs School of Business

Information Technology Vision Plan

Academic Year 2005/2006

November, 2004

The University of Texas at Austin

Austin, Texas

1. Summary of Requests:

Wireless infrastructure: The McCombs School of Business has been installing wireless access points on a limited basis for the past three years. We would like to complete a comprehensive plan to bring wireless network access to all classrooms and public spaces within the CBA and GSB buildings.

Requested Amount: \$75,000

Infrastructure Maintenance: Successive years of Special Projects have dramatically improved the technology infrastructure of the McCombs School of Business. The challenge now becomes continued funding of hardware maintenance and replacement for network and data center components, staffing and training.

Requested Amount: \$200,000

Student Lab Infrastructure: The computer labs operated by Computer Services are a vital component of our IT infrastructure and a critical resource for our students and faculty. Changes in technology and the needs of our faculty require increased capacity to manage our labs, react quickly to problems and faculty requests. To do this we need to add additional server capacity, management tools, software and training.

Requested Amount: \$50,000

Mobile computer lab: Increased demand for computer lab facilities for student instruction is exceeding our available resources. We would like to pilot the use of a notebook computer-based mobile lab (leveraging our increased wireless network access from the above item) to meet this increased demand.

Requested Amount: \$50,000

Collaboration Tools: There has been a marked change in recent years by faculty at all levels in the College of Business to require more group and collaborative work. As part of our ongoing efforts to meet these needs we need to devote more server and network resources, as well as training, on new tools like Microsoft SharePoint and Office 2003.

Requested Amount: \$20,000

Linux and Open Source technologies: We wish to leverage the Red Hat Linux Education Program to increase the availability of Linux and other open source resources for our students and faculty.

Requested Amount: \$13,500

2. Overview of Current Programs & Infrastructure:

This vision plan establishes the strategic goals for information technology improvements for the McCombs School of Business for Academic Year 2005/2006 and beyond.

As a general statement of policy, we will adopt the most relevant business-related hardware and software technologies for the McCombs School of Business as it becomes commercially available and meets our pre-deployment quality of service needs, through a series of pilot and pre-deployment testing phases. We will accomplish this through strategic alignments with a set of premier corporate information technology partners and judicious use of ITAC fees, the business school's information technology fees, course fees, state allocated funds, grants, and donations derived from selected industry and government entities.

Facilities:

The McCombs School of Business currently operates:

- **Data Center:**
 - 80 servers, one SAN, approximately 15TB of storage. Key services include:
 - Exchange 2003 cluster providing 50MB mailboxes for students
 - SQL cluster for enterprise applications and stand alone servers for use by faculty and students for class projects
 - Multiple web servers for hosting the McCombs website, individual student sites and class web projects
 - File servers to provide students with 250-500MB of network storage accessible from both on and off campus
- **Five student computer laboratories.**
 - **The Millennium Lab**, our main general use facility, is comprised of 160 workstations, of which six are dedicated to student team use; these six stations have been configured with dual monitors to facilitate working in groups with large documents/spreadsheets. These workstations are 2.53GHz/1GB RAM/DVD-CDRW and 40GB hard drive units running on a 100Mb switched Ethernet network. This lab also has network connections for 166 notebook computers. This lab is open continuously from Sunday at 1pm until Friday at 5pm; it is also open on Saturday.
 - **The Mod Labs**, two modular classroom labs, are designed specifically for instructional use. These labs can be reserved for lectures, labs, presentations, and examinations. There are 40 seats in each lab with a removable partition so that the two rooms can be used independently or as one large 80-seat lab. When not reserved, these labs are available for general student use. The computers in these labs are 2.53GHz/1GB RAM/DVD-CDRW and 40GB hard drive units, also running on a 100Mb switched Ethernet network.

- **The PhD Lab**, which contains eight 2.53GHz/1GB RAM/DVD-CDRW and 40GB hard drive workstations, runs extra software in addition to our normal Common Operating Environment (COE) and is reserved for PhD students only.
 - **Two Training Labs**, designed for software application training and other advanced classes. These training facilities are designed for easy customization of OS and software configurations, with typical classes ranging from a few hours to a couple of weeks in duration as needed.
 - **Open Source Development Lab**, in response to increase demand from our corporate contacts and partners we have put in place a pilot computer lab for use by students to gain experience with current open-source server and workstation operating systems and development tools and to deliver projects requested through our MIS Bridge program which require the use of open source tools and technologies.
- **Classrooms and additional network & power enabled areas**
 - **Classrooms** have been enhanced with projection equipment, network ports, and connections for laptop computers.
 - **The four Cohort Rooms** are classrooms used by the MBA Program for MBA core classes. Each room has power and 100Mb switched Ethernet ports at each of the approximately 85 seats.
 - **The Reliant Productivity Center** is a 250-seat technology-enhanced study area. Each seat is equipped with a 100Mb switched Ethernet port and power outlet. This facility has been designed to provide both individual workspaces and group areas for students to work on team projects. This lab is open continuously from Sunday at 1pm until Friday at 5pm; it is also open on Saturday.
 - **The 3rd Floor Atrium** is an open lounge/work area with 50 power outlets and 100Mb switched Ethernet ports.
 - **Wireless network access areas** covering the 3rd floor atrium, the Carpenter Center, the Ford Career Center interview rooms, the MBA Program Office, the Hall of Honors, and all of the floors in UTC are currently functional.

Business School IT Funding Overview and Lifecycle

Constantly changing technologies as well as needs for course development have required continuous changes to our funding methods and sources. Opportunities provided by corporate alliances for grants and practicums have provided new software, hardware, and cash for our facilities and new improvements, as well as budget windfalls to use on projects of lesser initial priority that still require funding. While we have made continuous adjustments to our vision plans and priorities, we have remained focused on the McCombs School of Business goal of constantly providing appropriate business-oriented technology for our community.

We have funded our expenditures with information technology and course fees, allocations from the Information Technology Advisory Committee (ITAC), and when necessary, from loans from UT System. We are continually looking for ways to modify our fee structure so that we will be able to meet the needs of our technology evolution. However, it is becoming clear that we are rapidly approaching the point where we will need to freeze the level of student fees and acquire the necessary additional funds from other sources. Failure to acquire these necessary funds will leave us with no choice but to cut requirements for any increased services.

Income Sources for Computer Services Department

ITAC Funding	2004-2005	\$719,436
	2003-2004	\$579,826
	2002-2003	\$566,081
Student Technology Fees (McCombs School of Business)	2004-2005	\$3,260,400 estimated
	2003-2004	\$3,611,537
	2002-2003	\$3,421,463
State Funds (Provost Office)	2004-2005	\$286,170
	2003-2004	\$312,690
	2002-2003	\$678,271

Staffing:

Area	FTE
Executive Management and Strategic Planning	3.00
Administrative Support	3.50
Administrative Computing Support (Support Dean's use of student records)	11.00
Computer Lab Operations	6.00
Enterprise Server & Network Operations	9.00
Technical Support	7.00
Network/Computer Security	1.00
Training	3.00

The MSB Computer Services department emphasizes the importance of industry certifications. The current staff includes:

- 6 – Windows 2000 MCSE (Microsoft Certified Systems Engineer)
- 1 – CCNA (Cisco Certified Network Associate)
- 6 – Dell Corp Technician certifications
- 3 – CompTIA A+ certifications
- 1 – CompTIA Linux+ certification

The student employees on staff include 41 students that serve as computer lab proctors. Additionally, there are 9 students working in the SWAT (Students With Advanced Technology) shop, where they help support the hardware and software on the 1000+ student notebooks in use throughout the school.

3. Use of Previous Year Allocations and Project Status

Total ITAC Expenses Report

2004-2005 ITAC BUDGET SUMMARY	
Revenues	
2004-2005 ITAC Allocation	
Recurring Annual Infrastructure Allocation	\$254,436
One Time Project Allocation	\$465,000
Carried Forward from 2003-2004	\$136,917
Total Available	\$856,353
Expenditures (Estimated)	
Salaries, Wages & Fringe	\$250,286
Maintenance & Operations	\$8,917
Capital Equipment	\$537,150
Total Expended	\$796,353
Carry Forward to FY 2005-2006	\$60,000

We have concluded, or moved into a maintenance phase, most of the projects listed in the 2004-2005 Vision Plan. Notable exceptions to the previous year plan include re-allocating resources slated to VPN services and Exchange Anti-virus to Server Room enhancements and Infrastructure Maintenance. We elected to make purchase a central UPS system for the entire data center, rather than continue to purchase and maintain units for each server, at a cost of ~\$80K. We also had to purchase more switches than anticipated after several units failed during the year.

Several projects are ongoing from the previous Vision Plan. We are exploring lower cost VPN solutions, leveraging our investment in Windows 2003 servers. We are also continuing, with additional funding, to pilot new collaborative tools. With the work that the College of Communications has done to investigate patch management solutions we expect to be able to bring that project to completion soon. We continue to implement .NET solutions and have increased our developer and admin training on this exciting new technology.

We are extremely pleased to have been able to take advantage in the University's investment in the Brightmail anti-spam solution and adopt that service for our constituents. We are hopeful that more projects like this can be funded.

4. Proposed Projects for AY2005/2006

Wireless infrastructure

The McCombs School of Business has been installing wireless access points on a limited basis for the past three years. We would like to complete a comprehensive plan to bring wireless network access to all classrooms and public spaces within the CBA and GSB buildings.

Target Audience: All McCombs students, faculty, and staff will benefit from this project by experiencing ready access to network resources and the internet.

Cost Analysis: ITS estimate for this project, including access points and related hardware and cabling, as well as additional PNA servers, is ~\$100,000.00

Infrastructure Maintenance

Successive years of Special Projects have dramatically improved the technology infrastructure of the McCombs School of Business. The challenge now becomes continued funding of hardware maintenance and replacement for network and data center components. We strongly endorse the Network Lifecycle Model proposed by the College of Engineering and agree with the assessment that too many of our systems are vulnerable to single point failures.

Target Audience: All McCombs students, faculty, and staff will benefit from this project by experiencing a more stable computing environment.

Cost Analysis: Server Replacement (4 Yr. Lifecycle), Switch Replacement (5 Yr Lifecycle), establishing redundancy for critical systems and other key infrastructure maintenance tasks will require in excess of the \$200,000.00 requested.

Student Lab Infrastructure

The computer labs operated by Computer Services are a vital component of our IT infrastructure and a critical resource for our students and faculty. Changes in technology and the needs of our faculty require increased capacity to manage our labs, react quickly to problems and faculty requests. To do this we need to add additional server capacity, management tools, software and training.

Target Audience: All McCombs students and faculty will benefit from this project by experiencing a more reliable, flexible and powerful lab computing environment.

Cost Analysis:

Item Description	Units	Cost Per Unit	Total Cost
RIS and Management Server	3	\$6,000.00	\$18,000.00
Client Management Application	350	\$25.00	\$8,750.00
Presentation Equipment			\$3,000.00
Lab Staff Training			\$6,000.00
Software Upgrades			\$17,750.00
Total:			\$50,000.00

Mobile computer lab: Increased demand for computer lab facilities for student instruction is exceeding our available resources. We would like to pilot the use of a notebook computer-based mobile lab (leveraging our increased wireless network access from the above item) to meet this increased demand. A wheeled cart serves as a base station for 30-40 notebook computers which could be reserved by faculty for use in a regular classroom.

Target Audience: All McCombs students and faculty, and staff will benefit from this project by experiencing a more flexible lab computing environment.

Cost Analysis:

Item Description	Units	Cost Per Unit	Total Cost
Notebook Computer Mobile Lab	1	\$50,000.00	\$50,000.00
Total:			\$50,000.00

Collaboration Tools

There has been a marked change in recent years by faculty at all levels in the College of Business to require more group and collaborative work. As part of our ongoing efforts to meet these needs we need to devote more server and network resources, as well as training, on new tools like Microsoft SharePoint and Office 2003.

Target Audience: All McCombs students, faculty, and staff will benefit from this project by experiencing a more stable computing environment.

Cost Analysis:

Item Description	Units	Cost Per Unit	Total Cost
SharePoint Portal Server	2	\$6,000.00	\$12,000.00
Staff Training	4	\$2,000.00	\$8,000.00
Total:			\$20,000.00

Linux and Open Source technologies

We wish to leverage the Red Hat Linux Education Program to increase the availability of Linux and other open source resources for our students and faculty.

Target Audience: All McCombs students, faculty, and staff will benefit from this project by experiencing a more stable computing environment.

Cost Analysis:

Item Description	Units	Cost Per Unit	Total Cost
Client License	100	\$25.00	\$2500.00
Server Licenst	20	\$50	\$1000.00
Staff Training and Certification	4	\$2,500.00	\$10,000.00
Total:			\$13,500.00