

Appendix G
Information Resources Strategic Plan
2003-2007

Texas A&M University-Corpus Christi
6300 Ocean Drive
Corpus Christi, Texas 78412

Dr. Robert Furgason, President

Charles Irby, IRM

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Executive Summary

It is anticipated that the University will continue to grow at a sustained rate. Additional student apartment buildings are planned for occupancy in 2002. The Harte Research building, a performing arts center, and a new classroom building (for 200 students) will be finished in 2005 and 2004, respectively. The new buildings will require added network and communications infrastructure. Growth in student, faculty, and staff will result in growth of information services and a significant change in how those services are delivered. Web-based distance learning classes will become a regular part of the University curriculum. Our service to customers will be enhanced through the aggregation of data, video, and voice into a single medium. A ubiquitous educational opportunity, without regard to time and location, is the promise of the converging technologies; and, is embraced by Texas A&M University-Corpus Christi.

Introduction/IR Vision

Texas A&M University-Corpus Christi, as a Texas institution of higher education, seeks to support the State's Vision for the Millennium. Common communication standards, open IR architecture, open and standard protocols are considered critical in the University's ability to interact effectively with local and regional constituencies and to provide public service responsive to local and regional needs. The University is scheduled to be the South Texas regional hub of the new State communications backbone being implemented during the next biennium.

Although Information Resources plays a role in the accomplishment of all the institutional goals, those that have significant impact on information resource planning are highlighted. It is the objective of Texas A&M University-Corpus Christi to provide students, faculty, and staff with the data processing and telecommunications tools consistent with curricula goals, efficient institutional management, and a modern environment. To that end, Texas A&M University-Corpus Christi has, over the last several years, built a computing service environment that provides a foundation for growth. Integration of personal computers and minicomputers via networks provides a platform to build an increasingly sophisticated information system.

To achieve its mission, Texas A&M University-Corpus Christi has set the following long-term goals (those in bold are directly supported by the IR environment):

Goal 1: **To provide exemplary teaching, research, and public service programs;**

Goal 2: **To expand access to higher education opportunities to the people of the greater South Texas region;**

Goal 3: **To foster diversity; and,**

Goal 4: **To promote a sense of community.**

As indicated in our University mission statement, the University has three major programs: education, research, and community service. The information resource goals directly support these three programs.

Table 1: Goals, Objectives, Strategies and Action Items

Item		Description
IR Goal #1		Provide computer interconnectivity between all appropriate workstations as an integrated environment with services delivered transparently to the desktop.
IR Objective	1	Assure that all new facilities and upgrades to existing facilities include the appropriate cable and the appropriate wireless technology for LAN expansion.
	2	Refine hardware/software standards and procurement guidelines.
IR Strategy	1	Continue and refine roles of appropriate technology related committees in fostering the planning and implementation processes.
	2	Seek financial and other support from corporate and other non-appropriated fund sources.
	3	Seek consulting support from State agencies, industries, and others related to evaluation of hardware and software, design, and LAN management.
IR Goal #2		Provide students, faculty, and staff with appropriate training and support opportunities.
IR Objective	1	Increase participation in training services.
IR Strategy	1	Increase training opportunities.
	2	Evaluate ways to expand Student Help Desk and Computer Help Hotline coverage.
	3	Review and expand online help information.

Item		Description
IR Goal #3		Enhance bandwidth and effective use of bandwidth.
IR Objective	1	Provide bandwidth necessary to support the University goals without bottlenecks.
IR Strategy	1	Establish, review, and revise policies and guidelines for student use of the wide area networks.
	2	Continue to monitor use of the wide area networks to provide planning data.
	3	Identify, on an annual basis, those new technologies appropriate for installation and prepare an annual budget and action plan related to installation and utilization of the identified technologies.
	4	Continue to provide voice, data, security, fire warning, and video to all buildings via optical fiber systems or other methods using multiplex technologies.
	5	Identify technologies, such as microwave, infrared, laser and others, that can accomplish multi-path and multi-signal delivery of communication services.
IR Goal #4		Provide the necessary resources and support to fulfill our Distance Education mission to South Texas.
IR Objective	1	Pursue access to the technological infrastructures required to support a comprehensive distance learning environment.
IR Strategy	1	Ensure access to sufficient resources to overcome the susceptibility of academic programs to technical problems of delivery.
	2	Maintain interoperability and open standards in our infrastructure.

Item		Description
IR Goal #5		Significantly improve the availability of workstations for student use.
IR Objective	1	Reduce the current ratio of students to networked workstations until a ratio of 20:1 is achieved.
IR Strategy	1	Add laboratories and/or workstations as needs are identified.
	2	Examine, test and implement means of delivering Local Area Network access to the campus other than through fixed infrastructure.
	3	Evaluate requiring computer ownership for students enrolled.

Organizational Charts

Media & Computer Services Organizational Chart

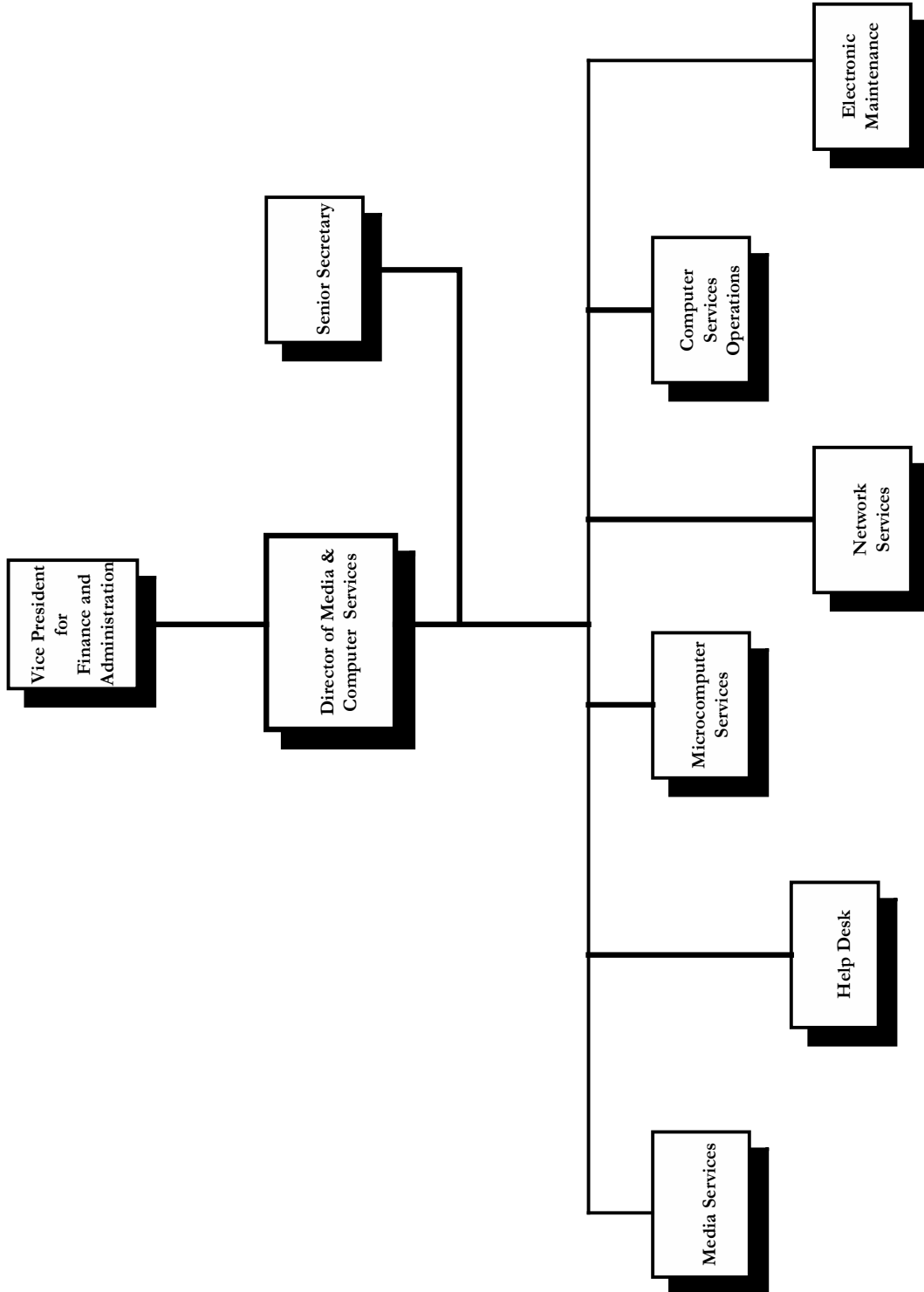


Table 2: Information Resources Policies and Practices

Category	Brief Summary/Overview
IR Priorities	It is the continuing goal of Texas A&M University-Corpus Christi that the priority identification process for information resources be broadly participatory. Priority setting is accomplished through recommendations by the Provost's Council, Student Government Association, Distance Education Council, Information Technology Council, Administrative Technology Infrastructure Council, Educational Technology Committee, Strategic Planning and Budgeting Council, the Deans Council, and the President's Cabinet.
IR Planning Methodology	Consistent with the goals of Texas A&M University-Corpus Christi, is the preparation, semi-annual review, and biennial submission of a five-year automation and telecommunications plan. Planning for academic and administrative computing resources are accomplished through the committees and councils listed in the IR Priorities section of this document. The Information Technology Council prepares the five-year plan, provides continuing review and recommends updates and changes to a general University steering group, the Strategic Planning and Budgeting Council, that oversees and coordinates all University planning efforts to assure conformity and focus.
Computer Replacement Schedule	Every four years. Some PC laboratories are replaced more often as required by software used in the curriculum. Early replaced machines are cascaded to other departments. All replacement decisions are initiated through the Information Technology Council.
Standards	<p>In addition to State standards, Texas A&M University-Corpus Christi is required to adhere to all Texas A&M System (TAMUS) Board of Regents requirements. When applicable, the Internet RFC (http://www.rfc-editor.org/) is also followed.</p> <ul style="list-style-type: none"> • Building and Campus Wiring Recommendations Follow TAMUS guidelines (“Red Book”) • IP Address Assignment Follow RFC and State guidelines • Personal Use of E-Mail & Internet Services Follow State, TAMUS, and local guidelines • Video Conferencing Standards Follow State and TAMUS WAN (Wide Area Network) guidelines • Sale or Transfer of Computers and Software Follow General Service Commission guidelines on purchasing and State and TAMUS asset management guidelines

Category	Brief Summary/Overview
Standards Continued	<ul style="list-style-type: none"> • Internet Domain Names for Government Entities in Texas Follow State, TAMUS, and RFC guidelines • Directory and Locator Services Follow State and TAMUS guidelines • Personal Naming Convention Follow State and TAMUS guidelines • World Wide Web Design and Coding Guidelines Follow State and TAMUS guidelines. Required disclaimers and information is posted • E-Mail and Document Interchange Guidelines Follow TAMUS guidelines • Digital Signatures and Certificate Authority Public/Private key certificates via State approved contractor VeriSign
Procurement	<p>The PC procurement schedule is in compliance with the DIR guidelines. The decision process followed by the university's Information Technology Committee (ITC) parallels that of the DIR process and is re-evaluated each year. Based upon current prices of PCs and meeting ITC standards, funds are allocated such that each year twenty-five percent of a department's PCs can be replaced.</p> <p>Contract services will continue to be a very limited part of Texas A&M University-Corpus Christi information resource operations. However, shared resource use between Texas A&M University-Corpus Christi and other members of the Texas A&M System will continue to increase as new opportunities are identified.</p>
Quality-Assurance Practices	<p>The University has had no projects that meet the minimum requirements since 1987. However, both academic and administrative requests involving multi-users must be approved through some or all of the groups described in the Priorities section of this document. Should there be any above threshold projects, a project team will be put in place in accordance with TAMUS, local procedures, and DIR assistance.</p> <p>Since 1990, Texas A&M University-Corpus Christi has had only minor developmental programming. It has been University procedure to purchase rather than develop software. CASE tools are not part of the software inventory.</p>
Security	<p>Security is a multi-fold responsibility that starts at the individual office level. Physical security is the direct responsibility of each department, assisted by the University Police. Local data file (personal computer) security also resides with the department. Network file and mainframe file/data security is the responsibility of both the data owner and the Department of Media and Computer Services. Access to network files and mainframe files is authorized by the responsible department</p>

Category	Brief Summary/Overview
Security Continued	manager and granted by the Computer Systems Manager. Traditional failed-logon procedures, password, and account-number-security measures are used for interconnected machines.
Disaster Recovery/Business Continuity Planning	Disaster recovery is based upon the TASSCC document. Teams are assigned based upon priorities of recovery. Hurricanes are deemed our major natural threat. Mainframe/data center is no longer part of the University computer environment. Because Hurricane is our major risk, the University has chosen to establish a diverse network system with limited redundancy. As Texas A&M University-Corpus Christi is a distributed server/network site, WTDROC has had very limited applicability. Financials and Human Resource functions are provided by Texas A&M University System. Distance Education is outsourced. Student records and Library operations are the only significant systems operated locally.
Information Sharing	Interagency data communication is in place between Texas A&M University-Corpus Christi, Texas A&M-Kingsville, and Texas A&M System. Internet systems provide electronic mail and other services to faculty and administration.

Table 3: Agency Platforms, Systems and Telecommunications

Category	Type	Operating System	Database Mgmt System	Capacity/ Size/Count	Comments/ Descriptive Information
LAN Server	Dell PowerEdge PC	NT4 Srvr	N/A	(3) 9G, RAID 5; Dual PII-300, 256M	Departmental File/Print Server
LAN Admin	Dell PowerEdge PC	NT4 Srvr	SQL Server	(2) 4G; Dual PII-300, 256M	SQL Server Database Server
LAN Admin	Dell PowerEdge PC	NT4 Srvr	SQL Anywhere	(3) 9G, RAID 5; Dual PII-300	SQL Anywhere Server Database Server
LAN Admin	PC (in-house)	NT4 WS	N/A	512M, 1.2G; 4.3G; K6-2 350, 32M	Spitfire automated calling system
LAN Admin	PC (in-house)	NT4 WS	N/A	1.2G; 4.3G; K6-2 350, 32M	Outlook management system
LAN Admin	PC (in-house)	NT4 Srvr	N/A	4.3G, 8.4 G; Dual Celeron 500; 128M	Departmental Web; ILS for NetMeeting; Index Server for document retrieval
Net Storage	HP SureStore	N/A	N/A	(12) 24xCDRom	CD Tower

Category	Type	Operating System	Database Mgmt System	Capacity/ Size/Count	Comments/ Descriptive Information
Net Storage	HP SureStore	N/A	N/A	(12) 24xCDRom	CD Tower
Mini	DEC 2100 4/275 x3	DEC Open VMS Alpha V7.1	ZSS V1.18, SIS+ V1.18, SEM V1.03, SAS V6.12, 93 FOCUS V6	(10) 2.1 SCSI disks, RAID 5; 2GB RAM	Telnet from campus PC's, batch and online capabilities, student records
LAN Servers (Central)	HP LH3 PC	Novell	N/A	Pentium II 450's, 256MB RAM, (3) 18G, RAID 5	Student LAN File and Print Servers
LAN Servers (Central)	Mac	Mac OS	N/A	G3-400's, 128MB RAM	Student LAN File and Authentication Servers
WAN Servers	Mac	Mac OS	N/A	F3-300, 128MB RAM	Lab Scheduling Web Server
LAN Admin	Macintosh	Mac OS X Server	N/A	2x9G	Eve: Web, QuickTime Streaming, FTP, Telnet Services

Category	Type	Operating System	Database Mgmt System	Capacity/ Size/Count	Comments/ Descriptive Information
LAN Admin	Macintosh	Mac OS 9	N/A	2x9G & 1x4G	Shrike: Kiosk Access Tape Backup
LAN Admin	Macintosh	Mac OS 8.6,	FileMaker Pro 4	1x4G	FMWeb: Database Webserver
LAN Admin	Macintosh	Mac OS 9.1	Filemaker Pro 4	1x9G	Sentry: Keyserver/S software License
LAN Admin	Macintosh	Mac OS 8.6	N/A	1x270M	
LAN Admin	Macintosh	Mac OS 9	Filemaker Pro 5	1x9G	FMServer5: Database Server Groove: Web, FTP, Telnet
LAN Admin	Macintosh	Mac OS X Server	N/A	2x9G	
LAN Admin	HP Netserver	Os Novell Netware5.1	N/A	PII 350, 512M, 24G PII 450, 512M, 20G PII 200, 512M, 24G PIII 550, 512M, 32G PIII 733, 512M, 32G	File & Print Services, e-mail for Administrative, Colleges and Helpdesk support.
LAN Admin	HP Netserver	OS Novell Netware5.1	N/A	PII 450, 512M, 38G PII 450, 512M, 38G PIII 733, 512M, 33G	Student File & Print

Category	Type	Operating System	Database Mgmt System	Capacity/ Size/Count	Comments/ Descriptive Information
LAN Admin	HP Netserver	NetWare4.11	SQL Anywhere	LC3	Helpdesk Support
LAN Admin	Dell	NetWare 6.0		PIII 750, 2GB, 54G PIII 750, 2GB, 54G & 750G Powervault	File, Print, and E-mail
LAN Admin	Macintosh	OS 9.0.4	N/A	1x9G	Norad: Mac Authentication Server
WAN Server	Dell PowerEdge 6400	Red Hat Linux 7.1	N/A	6x73 Gigabyte Drives / 331 Gigabytes in a RAID 5	Falcon: Faculty, Staff and Primary web and e-mail server. Secondary DNS server
WAN Server	Dell PowerEdge 6400	Red Hat Linux 7.1	N/A	6x73 Gigabyte Drives / 331 Gigabytes in a RAID 5	Kestrel: Student and Student Organizations web and e-mail server. Secondary DNS server
WAN Server	Dell PowerEdge 4300	Red Hat Linux 6.2	MySQL	3x9 Gigabyte Drives / 17 Gigabytes in a RAID 5	Owl: Primary Database Server and Database Web Development Platform.
WAN Server	Dell PowerEdge 2300	Red Hat Linux 7.1	N/A	2x9.1 Gigabyte Drives / 18.2 Gigabytes	Webct: Campus Webct Online Course System server.
LAN Admin	Macintosh	OS 10.1.5	N/A	Raid 5	Swan: Primary Macintosh File Server

Category	Type	Operating System	Database Mgmt System	Capacity/ Size/Count	Comments/ Descriptive Information
WAN Server	Dell PowerEdge 2400	Red Hat Linux 7.1	N/A	5x18 Gigabyte Drives / 18 Gigabytes in a RAID 1, 35 Gigabytes in a RAID 5	Critical: English Writing Program Web/Frontpage 2000 server.
WAN Server	Dell PowerEdge 4400	Red Hat Linux 7.1	N/A	4 73 Gigabyte Drives / 198 Gigabytes in a RAID 5	Video: RealVideo Streaming Media server.
LAN Admin	Microstop PC AMD K6 200MHZ.	Caldera OpenLinux 2.3	N/A	1x2.1 Gigabyte Drive	MicroLab: Linux-Novell Password Changing Server
LAN Admin	Microstop PC Intel Pentium 233Mhz.	Red Hat Linux 7.2	N/A	1x5.1 Gigabyte Drive, 1x2.1 Gigabyte Drive, 1x3.1 Gigabyte Drive / 10.2 Gigabytes	Watchdog: Network Monitoring and Paging server. Web server.
WAN Server	Microstop PC Intel Pentium 233Mhz.	Red Hat Linux 7.2	N/A	1x3.2Gigabyte Drive / 3.2 Gigabytes	Harrier: Anonymous FTP server.
LAN Admin	Microstop PC Intel Pentium Pro 200Mhz.	Red Hat Linux 5.1	N/A	1x2.1Gigabyte Drive / 2.1 Gigabytes	Merlin: Primary DNS, DHCP, BOOTP server. Lan Management software.
LAN Admin	Microstop PC Intel Pentium 133Mhz.	Red Hat Linux 6.0	N/A	1x2.1Gigabyte Drive / 2.1 Gigabytes	Sleeve: Secondary BOOTP server.
LAN Admin	Microstop PC Intel Pentium 233Mhz.	Red Hat Linux 6.0	N/A	1x2.1Gigabyte Drive / 2.1 Gigabytes	Normandy: Primary Mail Exchange, Listserv server.
LAN Admin	Microstop PC Intel Pentium 166Mhz.	Red Hat Linux 6.0	N/A	1x2.1Gigabyte Drive / 2.1 Gigabytes	Fddi-bootp: Tertiary BOOTP server.

Category	Type	Operating System	Database Mgmt System	Capacity/ Size/Count	Comments/ Descriptive Information
Mini	DEC Alpha	DEC Open VMS	Diebold vendor		Bursar's server
Mini	DEC Alpha 433U	Unix	Innovative Interface, Inc.		Portal Online library catalog
LAN Admin	HP Netserver	NetWare 5.1	Microsoft Access	Pentium II 350 512 MB, (2) 9G harddrive	Scorpion- Database/ASP
LAN Admin	HP Netserver	Linux 5.1	Apache	Pentium III 550, 512 MB, (2) 9G harddrive	Rattler- Webserver

Category	Type	Capacity/Size/Count	Comments/Descriptive Information
Switches	3COM (10-100 Mb)	40	
Hubs	3COM	150	2100 Net Devices
Hub Routers	CISCO/3COM	4	
Remote Bandwidth Analog 1.7 Mb	N/A	80	
Remote Bandwidth Digital T1	N/A	12	Data & Compressed TV
Supported Protocols	TCP/IP, IPX, AppleTalk, 3270	N/A	
Internet Service Provider	Texas A&M University-Corpus Christi (self)	N/A	

Category	Type	Capacity/Size/Count	Comments/Descriptive Information
Shared Network Texas A&M University Wide Area	Texas A&M University Systems	N/A	

Table 4: Agency Database

Student Records	SIS; Student Records; Flat File; COBOL; No Sharing; Convert to relational, no time frame, conversion managed by IRM, normal growth and replacement.
Library	Innovative Interface, Inc.; Online Library Catalog; Innovative Interface, Inc.; C++; 600+ libraries connected worldwide through the WWW, locally, Driscoll Children's Hospital and the Art Museum; normal growth and replacement
Sandollar Accounts	Diebold ICAM System; Integrated Campus Access Management; VMS flat file; Open VMS, COBOL
Alumni/Donor Records	The Raiser's Edge; Alumni and donor database; Sybase SQL Anywhere; Visual Basic, Visual C++; 9GB+ (multiple databases); Institutional Advancement, Athletics, South Texas Institute for the Arts; Normal growth & replacement
Telemarketing Records	SmartCall; Telemarketing donations database; Microsoft SQL Server; Visual Basic; 4GB+; No Sharing; Normal growth & replacement

Table 5: Agency Applications

Application Name	Student Information System (SIS)
Application Type	
Application Description	Maintains student records.
Database System	Proprietary
Development Language	COBOL
Sharing	N/A
Future	Maintain & Enhance

Application Name	Groupwise 5.5
Application Type	E-mail
Application Description	Electronic mail system
Database System	N/A
Development Language	N/A
Sharing	N/A
Future	Will continue to monitor, evaluate, and upgrade as appropriate.