

Administrative and Educational Support Report

Information Security

Annual Action Plan Annual Assessment Report

June 2006 – May 2007



Annual Action Plan: June 1, 2006–May 31, 2007

Unit: Information Security

UTPA Mission: The University of Texas-Pan American (UTPA) serves the higher education needs of a rapidly growing, international, multicultural population in the South Texas Region. The University preserves, transmits and creates knowledge to serve the cultural, civic, and economic advancement of the region and the state. The University provides students advanced instruction in academic programs offered through innovative delivery systems that lead to professional certification, and baccalaureate, master’s and doctoral degrees. Through teaching, research, creative activity and public service, UTPA prepares students for lifelong learning and leadership roles in the state, nation and world community.

Division: Information Technology **Unit Head:** Mauro Scardigno

Unit Mission: Provide the support for the telecommunications infrastructure and services required to ensure that all members of the UTPA community are able to fulfill their portions of the University’s mission in a timely, secure, and cost effective manner.

University Goal: Optimize institutional effectiveness and efficiency consistent with high quality organizational standards.

Division Objective: Deliver basic services effectively and efficiently.

Unit Objective	Strategy(ies) to Achieve Unit Objective	Measurable Outcome for Unit Objective	Assessment Criteria, Evaluation Methods for Measurable Outcome	New Resources Needed in FY07
Improve network security through a campus-wide consolidation of facilities and by the ongoing replacement of non-manageable data switches and hubs, as legacy units are discovered, to models supporting port management options. (1)	Assess and examine the campus network which in the past could not be directly observed and evaluated as our technicians did not have access to, or control over, the switching devices in those areas.	Replace 100% of all non-manageable network devices with manageable versions.	<ul style="list-style-type: none"> Verify the lack of isolation in many network segments until 100% compliance is achieved by May of 2007. Ensure that 100% of the campus network has been observed and evaluated to prepare for integration into the unified network infrastructure by May of 2007. 	No new resources beyond those covered by existing operating funds will be required.

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Ensure that all of the communications closets and switch rooms have standardized locksets with only designated Telecomm Services technicians, UTPA Police, and Physical Plant staff having access. (2)	Project has been approved by CFPC and is currently on hold pending funding approval.	Refit 100% of all communication closets and switch rooms with standardized locksets that will limit entry to authorized staff.	Work with telecommunication services to verify that 100% of all comm. closet and switch room locksets function with a single fob and produce an audit trail for all entries by May of 2007.	Approximately \$92,000.00 in funding to purchase and install the standardized locksets.
Provide continuing additional direct support to the Telecommunications Services staff. (3)	Information Security and Telecommunication Services staff will continue to examine the need for better control and faster response times modifying the configuration of the campus network edge devices.	Coordinate all Telecommunication Services and Information Security staff activities to have improved access controls.	<ul style="list-style-type: none"> • Ensure that Cisco PIX firewalls have been properly configured by May of 2007. • Ensure that Telecommunications and Security staff are properly trained on the pertinent equipment by May of 2007. • Evaluate and acquire a NAC (network access control) device to improve remote access security by May of 2007. • Acquire and set up a group of servers to be used for the purpose of testing various network related security applications by May of 2007. 	<ul style="list-style-type: none"> • Information Security will approximately need \$15,000 for training purposes. • Information Security will approximately need \$20,000 to purchase a NAC device. • Telecommunications and Information Security will need approximately \$15,000.00 to purchase the servers hardware.
Map all switched ports on campus to a physical location. (4)	Network staff will trace all unmarked data cables attached to switched ports	Map 50% of all switched ports to physical locations.	Work with Telecommunication services to ensure that 50% of all wired connections have been	Telecommunication services will need an additional \$6,000.00 for

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	to their physical end-points and label them appropriately and enter the information in a database.		mapped and appropriately documented by May of 2007.	wages for employees to complete this project sometime during FY2007/FY2008.
Maintain the current spam filtering solution. (5)	Ensure that the commercially available solution will continue to provide satisfactory filtering services.	Implement new rules and modify configurations to provide efficient spam filtering.	<ul style="list-style-type: none"> • Verify that the proper rules continue to be in place and properly backed up by May of 2007. • Evaluate the need for additional personnel and have one additional IT Security technician in place by May of 2007. 	Additional position is contingent on budget availability.
Ensure that devices containing personal information are registered accordingly. (6)	Ensure that the different University departments are aware of the registration requirements in order to maintain an inventory of such devices.	Build and maintain an accurate inventory of devices containing personal information.	<ul style="list-style-type: none"> • Create and modify current policies by May of 2007. • Perform risk analysis on devices identified as having personal information by May of 2007. • Work with Internet Services on the deployment of the server registration web page by May of 2007. 	None.
Ensure that the centrally managed WLAN which has the ability to collect utilization and client information, remains secure at all times. (7)	Information Security and Telecommunications will ensure that there is a continued collection and storage of information from the WLAN regarding the location and distribution of	Collect information which will allow the Information security staff to quickly identify and resolve issues.	Verify that the servers will collect the required data from the system by May of 2007.	Information Security will not need additional funds.

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	wireless users across the campus.			
Finalize the development of the annual risk review and business continuity plan for the Division of Information Technology. (8)	Complete up-to-date disaster recovery and business continuity plans.	Evaluate 100% of all current procedures. Modify, and/or create pertinent policies based on the results of the evaluation.	Ensure that IT has comprehensive disaster recovery and business continuity procedures that are up to date and in place by May of 2007.	No additional funds required.

University Goal:

Become an outstanding research institution, emphasizing collaborative partnerships and entrepreneurship.

Division Objective:

Provide infrastructure that will facilitate collaboration and growth among the research community.

Unit Objective	Strategy(ies) to Achieve Unit Objective	Measurable Outcome for Unit Objective	Assessment Criteria, Evaluation Methods for Measurable Outcome	New Resources Needed in FY07
Verify that the design, installation, and utilization of specialized research networks to accommodate grant-funded project requirements in accordance with the terms and conditions set forth by the funding agency such as NASA or the DOD. (9)	<ul style="list-style-type: none"> Work closely with telecomm support to ensure that telecomm support for research is fully compliant with all of the applicable regulations, rules, and State and Federal laws. Work with Telecommunication Services in order to ensure that the network infrastructure is 	Work with the network staff to ensure that network infrastructure is compliant with the demands of each specific research project and the funding agency providing oversight.	Verify that 100% of the network has been properly zoned and fire walled to ensure the most secure virtual environment possible by May of 2007.	None.

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	designed to support specialized technological needs and very high levels of security.			

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Division Objective:

Deliver basic services effectively and efficiently.

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Work with Telecommunication Services in the process of establishing a campus wide network standards and specifications for construction projects. (10)	Work with Telecommunication Services in the coordination effort with Physical Plant and UT System OFPC departments to verify consultant/contractor compliance with these network standards and specifications.	Consolidate 100% of the network infrastructure to ensure matching standards and reliability for data, voice, and video.	Ensure that there is on-going consultation between the IT staff and other units regarding the IT specifications for new construction and that the network is 100% consolidated by May of 2007.	None.
Oversee the expansion of the existing UTPA cable plant for the efficient and reliable transfer of data, voice, and video information. (11)	<ul style="list-style-type: none"> Verify that all the existing cable infrastructure and obsolete and defective media is replaced with new and updated cable. Oversee the design and plans to install a series 	<p>Provide assistance for Telecommunications in evaluating the replacement of 90% of the defective and obsolete cables.</p> <p>Plan for the expansion of the infrastructure needed to accommodate growth</p>	<p>Replace at least 90% of the defective and/or obsolete cabling in the campus infrastructure by May of 2007.</p> <p>Verify that there is a viable plan on-hand to expand the fiber cable</p>	None.

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	of fiber paths to provide true fail-over protection for all data, voice, and video systems.	and provide redundancy.	infrastructure and allow for growth west and north of the campus by May of 2007.	
	Conduct program review.	Review is complete. Recommendations for improvement implemented immediately and reported on FY07 Annual Assessment Report and/or included in FY08 Annual Action Plan.	Program review report, completed by FY07 Annual Assessment Report and/or recommendations implemented or included in FY08 Annual Action Plan.	None.



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Unit Objective	Measurable Outcome for Unit Objective	Assessment Criteria, Evaluation Methods for Measurable Outcome	Assessment Results (Use actual data to describe annual performance)	Use of Results (What change was made?)
Improve network security through a campus-wide consolidation of facilities and by the ongoing replacement of non-manageable data switches and hubs, as legacy units are discovered, to models supporting port	Replace 100% of all non-manageable network devices with manageable versions.	<ul style="list-style-type: none"> Verify the lack of isolation in many network segments until 100% compliance is achieved by May of 2007. Ensure that 100% of the campus network has been observed and evaluated to prepare for integration into the unified network infrastructure 	Information Security was able to corroborate that network services has replaced 99% of non manageable network devices and has integrated campus networks into an integrated infrastructure.	Switching equipment was replaced and non-integrated networks have been incorporated into the unified network.

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management options. (1)		by May of 2007.		
Ensure that all of the communications closets and switch rooms have standardized locksets with only designated Telecomm Services technicians, UTPA Police, and Physical Plant staff having access. (2)	Refit 100% of all communication closets and switch rooms with standardized locksets that will limit entry to authorized staff.	Work with telecommunication services to verify that 100% of all comm. closet and switch room locksets function with a single fob and produce an audit trail for all entries by May of 2007.	We have been able to verify that 45 locks have been replaced. IT Security and other essential and selected staff members have been granted access to these secure areas.	Regular door locks have been replaced with electronic locks that provide an audit trail of all attempted access.
Provide continuing additional direct support to the Telecommunications Services staff. (3)	Coordinate all Telecommunication Services and Information Security staff activities to have improved access controls.	<ul style="list-style-type: none"> • Ensure that Cisco PIX firewalls have been properly configured by May of 2007. • Ensure that Telecommunications and Security staff are properly trained on the pertinent equipment by May of 2007. • Evaluate and acquire a NAC (network access control) device to improve remote access security by May of 2007. • Acquire and set up a group of servers to be used for the purpose of testing various network related security applications by May of 2007. 	<p>Virtual firewalls have been installed in different areas including campus Kiosks, Auditor's office, Payments and collections, CBORD installations, WeatherBug system, Police Department, Guest access and camera systems.</p> <p>Training will be made available next year pending budget approval.</p> <p>Currently working on the evaluation of a NAC solution to improve and control remote access and the network access across campus.</p>	<p>Virtual firewalls have added an additional level of protection to the areas already mentioned.</p> <p>Evaluated NAC solutions from Nortel and Fortinet. Additional vendors, including Impluse's SafeConnect will be evaluated during the next few months.</p> <p>Finalized the purchase of a firewall solution to improve access controls.</p>
Map all switched ports	Map 50% of all switched	Work with Telecommunication	Verified that 40% to 50%	All documentation has

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on campus to a physical location. (4)	ports to physical locations.	services to ensure that 50% of all wired connections have been mapped and appropriately documented by May of 2007.	of network ports have been identified traced and documented.	been made available to Information security.
Maintain the current spam filtering solution. (5)	Implement new rules and modify configurations to provide efficient spam filtering.	<ul style="list-style-type: none"> • Verify that the proper rules continue to be in place and properly backed up by May of 2007. • Evaluate the need for additional personnel and have one additional IT Security technician in place by May of 2007. 	<p>A new spam solution was implemented on March of 2007. This new systems has redundancy features and has been able to provide a very efficient level of protection against spam.</p> <p>As of February 1, 2007 a new employee has been hired to partly assist in the management of this new solution.</p>	The new solution has been very efficient and it provides the desired level of redundancy and effectiveness reducing the management overhead significantly.
Ensure that devices containing personal information are registered accordingly. (6)	Build and maintain an accurate inventory of devices containing personal information.	<ul style="list-style-type: none"> • Create and modify current policies by May of 2007. • Perform risk analysis on devices identified as having personal information by May of 2007. • Work with Internet Services on the deployment of the server registration web page by May of 2007. 	<p>Currently working on the modification of policies in order to meet the new requirements prescribed by UTS 165 released on late part of April 2007.</p> <p>Risk analysis performed on specific systems and contracts requiring the use of persona information.</p> <p>Worked with Internet Services during the deployment of the server registration web page. Registration of servers</p>	<p>Risk analysis being performed on outsourcing services and systems containing personal information on an ongoing basis.</p> <p>Modifications made on the server registration web page will require administrators to disclose the existence of personal information on any registered servers.</p>

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			was completed on October 2006. Administrators will be asked to provide information about sensitive data on registered servers.	
Ensure that the centrally managed WLAN which has the ability to collect utilization and client information, remains secure at all times. (7)	Collect information which will allow the Information security staff to quickly identify and resolve issues.	Verify that the servers will collect the required data from the system by May of 2007.	Information Security has been able to verify the accuracy of the information collected by the devices associated with the WLAN equipment	The information has been readily available when Information Security needed information produced by the WLAN system.
Finalize the development of the annual risk review and business continuity plan for the Division of Information Technology. (8)	Evaluate 100% of all current procedures. Modify, and/or create pertinent policies based on the results of the evaluation.	Ensure that IT has comprehensive disaster recovery and business continuity procedures that are up to date and in place by May of 2007.	Disaster recovery and business continuity procedures have been updated.	Disaster recovery and business continuity procedures have been updated.

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Verify that the design, installation, and utilization of specialized research networks to	Work with the network staff to ensure that network infrastructure is compliant with the	Verify that 100% of the network has been properly zoned and fire walled to ensure the most secure virtual environment possible by	Assisted in research endeavors and provided guidance on research related projects.	Allocated current expertise available and identified vulnerabilities in order to establish the

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accommodate grant-funded project requirements in accordance with the terms and conditions set forth by the funding agency such as NASA or the DOD. (9)	demands of each specific research project and the funding agency providing oversight.	May of 2007.		secure development of research related applications.

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Work with Telecommunication Services in the process of establishing a campus wide network standards and specifications for construction projects. (10)	Consolidate 100% of the network infrastructure to ensure matching standards and reliability for data, voice, and video.	Ensure that there is on-going consultation between the IT staff and other units regarding the IT specifications for new construction and that the network is 100% consolidated by May of 2007.	Information security participates when needed on any on-going weekly consultation between IT and Physical Plant ensures that IT specifications for Telephone, Network, and Video services are reviewed and updated to reflect general campus goals for all new construction.	Provided input required to ensure adherence to campus standards and industry best practices.

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<p>Oversee the expansion of the existing UTPA cable plant for the efficient and reliable transfer of data, voice, and video information. (11)</p>	<p>Provide assistance for Telecommunications in evaluating the replacement of 90% of the defective and obsolete cables.</p> <p>Plan for the expansion of the infrastructure needed to accommodate growth and provide redundancy.</p>	<p>Replace at least 90% of the defective and/or obsolete cabling in the campus infrastructure by May of 2007.</p> <p>Verify that there is a viable plan on-hand to expand the fiber cable infrastructure and allow for growth west and north of the campus by May of 2007.</p>	<p>Information Security has been able to verify that network services is in the planning stages of a major fiber cable upgrade for the campus to replace fiber to the Bookstore, University Center, and to install new fiber from the Old Computer Center to the New Computer Center and from the Wellness Center to the Physical Plant.</p>	<p>Information Security has been informed about the new fiber paths have been established on the north of the campus via Van Week conduit bank from the New Computer Center to the Wellness Center and on to Physical Plant to provide a redundant fiber path. New fiber has been installed from the New Computer Center to Unity Hall and the Wellness Center.</p>
	<p>Review is complete. Recommendations for improvement implemented immediately and reported on FY07 Annual Assessment Report and/or included in FY08 Annual Action Plan.</p>	<p>Program review report, completed by FY07 Annual Assessment Report and/or recommendations implemented or included in FY08 Annual Action Plan.</p>		