

# Texas A&M University

## Detailed Assessment Report

### 2011-2012 Computing & Information Services (CIS)

As of: 12/11/2013 04:12 PM EST

(Includes those Action Plans with Budget Amounts marked **One-Time, Recurring, No Request**)

#### Mission / Purpose

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Computing & Information Services provides information technology leadership, expertise, and resources to the Texas A&M University community in support of Texas A&M Information Technology's mission to provide reliable, cost-effective IT services in support of the academic research, administrative, and outreach missions of the university.

#### Other Outcomes/Objectives, with Any Associations and Related Measures, Targets, Findings, and Action Plans

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##### **O/O 1: Data Center Objective**

The Teague and Wehner data centers house servers, mid-range, mainframe, supercomputers, and networking equipment that support several Texas A&M University and Texas A&M System mission-critical applications. The data centers are monitored by CIS Operations Center staff 24 hours a day, 365 days a year. The data centers are classified as Tier-2 under the Telecommunications Industry Association Data Standards Overview (TIA-942). A Tier-2 data center is susceptible to disruption from both planned and unplanned activity due to a single path for power and cooling. According to this standard, outages due to scheduled and unscheduled maintenance must not exceed an annual downtime of 22 hours per year. It is our goal to comply with Tier 2 Data Center standards.

##### **Connected Document**

[Assessment TIA 942](#)

##### **Related Measures**

##### **M 1: Data Center Measures**

All changes in the environment of the Teague and Wehner Data Centers are documented through our Keystone problem tracking system. Annual downtime is calculated from Keystone problem tracking system. Annual downtime is calculated from Keystone entries for the period September 1, 2011 through August 31, 2012.

Source of Evidence: Professional standards

##### **Connected Document**

[Assessment TIA 942](#)

##### **Target:**

Data Center downtime not to exceed 22 hours annually.

##### **Finding (2011-2012) - Target: Met**

The Teague and Wehner Data Centers had no scheduled downtime for the reporting period. There were 365 days of continuous Operations for both sites.

##### **Related Action Plans (by Established cycle, then alpha):**

##### **Campus Network Resiliency**

*Established in Cycle: 2010-2011*

Uptime measurements for the data center (Teague was 99.97%, Wehner was 100%), message services (99.98%) and internet connectiv...

##### **Data Center Improvements**

*Established in Cycle: 2011-2012*

Additional UPS capacity was installed to improve survivability resulting from power disruptions. To improve cooling reliability...

For full information, see the *Details of Action Plans* section of this report.

##### **O/O 2: Message Services Objective**

The objective of CIS Message Services is to provide a robust and reliable communication and collaboration infrastructure that supports the essential business, teaching, and research functions of the University. The Message Service infrastructure includes email relays, spam and virus filters, proxy servers, LDAP servers, and mail servers. The service objectives of this infrastructure is to maintain at least 99.9% availability during scheduled service periods, and to provide the features and tools necessary to advance the business and teaching mission. Availability is calculated by subtracting the scheduled maintenance minutes from the total clock minutes available, and using the results to calculate actual availability by subtracting unplanned downtime. Calculated amount of allowed unscheduled downtime to achieve 99.9% availability is 43.2 minutes/month. Applicability and usability of features and tools will be evaluated periodically through the use of customer surveys or questionnaires.

##### **Related Measures**

##### **M 2: Message Services Availability**

Message services are to be measured using internal monitoring systems and Keystone reports of customer accessibility. Actual usage averaged over the complete service complex will be measured and reported for the period between August 1, 2011 and July 31, 2012. Service availability analyses annually will provide data necessary for capacity planning and service expansions. Downtime in excess of 43.2 minutes/month will trigger investigations into prominent causes and solutions required to bring the system back into compliance. Customer surveys/questionnaires will provide the necessary input to determine future features and changing requirements. Customer reports received through CIS's Problem Tracking System (Keystone) will also be collected. This data will be used to plan enhancements and improvements to the service. SolarWinds is the online tools to track and measure availability for

our services. Using the described assessments will provide information essential for the continuous improvement of existing services, and to plan capacity increases as demand for the services grow. Use of customer surveys, questionnaires and information gleaned from CIS's Problem Tracking System will allow stakeholders to be involved in the assessment process. This measurement and assessment plan is feasible and achievable with current resources and staff at current customer loads. Any substantial growth in the customer base, or additional features, may require additional staffing and financial resources to achieve significant results in a timely manner. Data collection and analyses related to Message Services will be performed by CIS's Infrastructure Systems & Services and CIS's Communications & Marketing teams.

Source of Evidence: Existing data

**Target:**

Calculated amounts of allowed unscheduled downtime to achieve 99.9% availability is 43.2% minutes/month. This target has been set based on capabilities of the Data Centers in which the services are housed, and established industry best practices for applying system and security patches and maintenance for servers and applications.

**Finding (2011-2012) - Target: Met**

Message services had 45 hours of scheduled downtime for the reporting period. Reports from SolarWinds showed we had an availability of 99.98% for message services for the period of September 1, 2011 through August 31, 2012. Outages that did occur were partial outages, each affecting less than 20% of the customer population at any one time.

**Related Action Plans (by Established cycle, then alpha):**

**Message Services**

*Established in Cycle: 2009-2010*

Findings indicated there was insufficient server redundancy exists due to all service components being housed in a single Tier-2...

For full information, see the *Details of Action Plans* section of this report.

**O/O 3: Internet Access**

Most critical information technology services depend upon network availability. A key aspect of network availability is access to and from the internet via the campus network backbone, which includes redundant connectivity to the Teague and Wehner data centers. Due to dependency by other services, internet access will maintain 99.999% availability on an annual basis.

**Related Measures**

**M 3: Internet Availability**

Internet availability is measured by polling campus backbone device status, user reported incidents, and periodic low level communication attempts to off-campus locations. Data including network configuration and test results are kept on internal NIS server. Availability will be reported based on actual data for the period of September 1, 2011 through August 31, 2012.

Source of Evidence: Existing data

**Target:**

99.999% uptime which is 5.25 minutes downtime.

**Finding (2011-2012) - Target: Partially Met**

Downtime was 16 minutes for the period of September 1, 2011 through August 31, 2012. This still equates to 99.997% uptime.

**O/O 4: Virtualization Services Objective**

The objective of CIS Virtualization Services is to provide a robust and reliable shared services infrastructure that supports the essential business, teaching, and research functions of the University. The Virtualization Service infrastructure includes servers, storage and network service components. The service objectives of this infrastructure is to maintain at least 99.9% availability during scheduled service periods, and to provide the features and tools necessary to advance the business and teaching mission. Availability is calculated by subtracting the scheduled maintenance minutes from the total clock minutes available, and using the results to calculate actual availability by subtracting unplanned downtime. Calculated amount of allowed unscheduled downtime to achieve 99.9% availability is 43.2 minutes/month. Applicability and usability of features and tools will be evaluated periodically through the use of customer surveys or questionnaires.

**Related Measures**

**M 12: Virtualization Services Availability**

Virtualization services are to be measured using internal monitoring systems and Keystone reports of customer accessibility. Actual usage averaged over the complete service complex will be measured and reported for the period between August 1, 2012 and July 31, 2013. Service availability analyses annually will provide data necessary for capacity planning and service expansions. Downtime in excess of 43.2 minutes/month will trigger investigations into prominent causes and solutions required to bring the system back into compliance. Customer surveys/questionnaires will provide the necessary input to determine future features and changing requirements. Customer reports received through CIS's Problem Tracking System (Keystone) will also be collected. This data will be used to plan enhancements and improvements to the service. SolarWinds is the online tool used to track and measure availability for our services. Using the described assessments will provide information essential for the continuous improvement of existing services, and to plan capacity increases as demand for the services grow. Use of customer surveys, questionnaires, and information gleaned from Keystone will allow stakeholders to be involved in the assessment process. This measurement and assessment plan is feasible and achievable with current resources and staff at current customer loads. Any substantial growth in the customer base, or additional features, may require additional staffing and financial resources to achieve significant results in a timely manner. Data collection and analyses related to Virtualization Services will be performed by CIS's Infrastructure Systems & Services and Communications teams.

Source of Evidence: Existing data

**Target:**

Calculated amounts of allowed unscheduled downtime to achieve 99.9% availability is 43.2% minutes/month. This target has been set based on capabilities of the Data Centers in which the services are housed, and established industry best practices for applying system and security patches and maintenance for servers and applications.

**Finding (2011-2012) - Target: Not Reported This Cycle**

None previously reported as this is a new measure.

## **O/O 5: Open Access Lab Objectives**

The objective of the Open Access Lab is to provide desktop services supporting academic instruction in classrooms, labs and remotely to the students and faculty of Texas A&M University. The Open Access Lab (OAL) service consists of PCs, servers, storage, printers and network components. The service objectives for this service is to maintain an average login time of no more than 50 seconds, an average reboot time of less than 3 minutes and provide the features and tools necessary to advance the teaching mission. The average login time is calculated by averaging the login times over each 5 minute period. The average restart times are calculated by averaging the restart times over each 5 minute period as well. Applicability and usability of features and tools will be evaluated periodically through the use of customer surveys or questionnaires.

### **Related Measures**

#### **M 4: Login and Reboot Times**

OAL login and reboot times are to be measured using internal monitoring systems and Keystone reports of customer experiences. Actual login and reboot times averaged over the complete service complex will be measured and reported for the period between August 1, 2012 and July 31, 2013. Service analyses annually will provide data necessary for capacity planning and service expansions. Login time averages in excess of 50 seconds and reboot time averages in excess of 3 minutes will trigger investigations into prominent causes and solutions required to bring the system back into compliance. Customer surveys/questionnaires will provide the necessary input to determine future features and changing requirements. Customer reports received through CIS's Problem Tracking System (Keystone) will also be collected. This data will be used to plan enhancements and improvements to the service. Using the described assessments will provide information essential for the continuous improvement of existing services, and to plan capacity increases as demand for the services grow. Use of customer surveys, questionnaires and information gleaned from CIS's Problem Tracking System will allow stakeholders to be involved in the assessment process. This measurement and assessment plan is feasible and achievable with current resources and staff at current customer loads. Any substantial growth in the customer base, or additional features, may require additional staffing and financial resources to achieve significant results in a timely manner. Data collection and analyses related to OAL login and reboot times will be performed by CIS's Open Access Lab team and CIS's Communications teams.

Source of Evidence: Existing data

#### **Target:**

The targeted average login time of no more than 50 seconds and reboot time of no longer than 3 minutes are based on data collected over the spring semester.

**Finding (2011-2012) - Target: Not Reported This Cycle**

None previously reported as this is a new measure.

## **O/O 6: Integrated Emergency Notification (IEN) System Objective**

The IEN project includes the purchase, implementation, operational support, and management activities for the Code Maroon system at Texas A&M University's College Station campus. The application software, licensed from AtHoc, Inc., provides the ability for the University Police Department to publish emergency information alerts simultaneously to multiple devices (SMS, email, classroom speakers, desktop popups, EAS, RSS, and Twitter). This latest version of the Code Maroon system replaced the previous system powered by E2Campus in September 2009. The IEN project team is currently working with AtHoc to upgrade the software and infrastructure to enable the University to take advantage of enhanced performance and reliability features. Intended outcomes include support for a larger number of desktop popup clients (described in measure M6), the AtHoc smartphone alerting application capability, and integration with additional channels in the future.

### **Related Measures**

#### **M 5: SMS Text**

Texas A&M University students, faculty, and staff who have a Texas A&M NetID and password can register one number to receive SMS text message alerts. By limiting this feature to campus members, emergency notifications can be delivered as quickly as possible.

Source of Evidence: Existing data

#### **Target:**

The maximum acceptable time allowed from when the alert was published until the text message is delivered to the cell phone carriers of all Code Maroon registrants is 7 minutes.

**Finding (2011-2012) - Target: Not Reported This Cycle**

None previously reported as this is a new measure.

#### **M 6: Email**

Code Maroon emergency alerts will automatically be sent to the Texas A&M Email (Neo) accounts ending with "@neo.tamu.edu." Recent tests indicate text messages is a faster notification method than email, so campus members are encouraged to register for text message alerts.

Source of Evidence: Existing data

#### **Target:**

The maximum acceptable time allowed from when the alert was published until the email message is delivered to all TAMU Email mailboxes is 30 minutes.

**Finding (2011-2012) - Target: Not Reported This Cycle**

None previously reported as this is a new measure.

#### **M 7: EAS Broadcast**

Each department of campus receives an EAS radio to allow for broadcast of emergency notification messages in the department areas.

Source of Evidence: Existing data

#### **Target:**

The maximum acceptable time allowed from when the alert was published until the message is converted from text to voice and the broadcast is begun on KAMU FM radio and campus television channels is 2 minutes.

**Finding (2011-2012) - Target: Not Reported This Cycle**

None previously reported as this is a new measure.

**M 8: Twitter**

Code Maroon text messages can be received by following Twitter. Twitter's "Fast Follow" feature allows one to receive text message alerts without signing up for a Twitter account.

Source of Evidence: Existing data

**Target:**

The maximum acceptable time from when the alert was published until the message is delivered to the TAMU Twitter account is 1 minute. Delivery time from the account to each "follower" is dependent upon how quickly Twitter can deliver the message and not controlled by the University.

**Finding (2011-2012) - Target: Not Reported This Cycle**

None previously reported as this is a new measure.

**M 9: RSS**

Code Maroon text messages can be received by subscribing to Code Maroon's RSS feed. The feed is monitored through an email client (Microsoft Outlook or Novell GroupWise), various news readers (My Yahoo, Google Reader, etc.).

Source of Evidence: Existing data

**Target:**

The maximum acceptable time allowed from when the alert was published until the message is available as an RSS Feed is 1 minute.

**Finding (2011-2012) - Target: Not Reported This Cycle**

None previously reported as this is a new measure.

**M 10: Computer Alerts Desktop Popup Clients**

Approximately 6,000 PC's and Macs on campus have Desktop Clients installed, which automatically display alerts in a popup window. All classroom computers that use Instructional Media Services (IMS) equipment have the computer alerts enabled.

Source of Evidence: Existing data

**Target:**

The maximum acceptable time allowed from when the alert was published until the message is displayed on a desktop computer that is running the client application is 3 minutes.

**Finding (2011-2012) - Target: Not Reported This Cycle**

None previously reported as this is a new measure.

**M 11: Classroom Speakers**

Code Maroon emergency alerts are automatically broadcast over loudspeakers in registrar-controlled classrooms (for a listing of classrooms, see <http://registrar.tamu.edu/FacultyStaff/ClrmLiPer.aspx>). This enables students and instructors to get alerts when cell phones have been silenced or where cellular signals are weak.

Source of Evidence: Existing data

**Target:**

The maximum acceptable time allowed from when the alert was published until the message is delivered to the online classroom speakers is 2 minutes.

**Finding (2011-2012) - Target: Not Reported This Cycle**

None previously reported as this is a new measure.

**O/O 7: Networking - Wireless**

The objective of providing wireless coverage to high priority locations, which include the library and other gathering places for students.

**Related Measures****M 13: Wireless**

The campus office space is approximately 12 million square feet and is at 60% completion.

Source of Evidence: Existing data

**Target:**

A plan to provide wireless coverage to key outdoor locations will be developed by September 2013. Office space coverage will be increased by 5% each year.

**Finding (2011-2012) - Target: Not Reported This Cycle**

None previously reported as this is a new measure.

**Details of Action Plans for This Cycle (by Established cycle, then alpha)****Message Services**

Findings indicated there was insufficient server redundancy exists due to all service components being housed in a single Tier-2 Data Center rated for 99.7% availability, which limits the achievable target for message services. Adding redundancy in the service architecture by replicating key operational components to a geographically disparate location will make a target of 99.9% attainable. Additional servers, storage and network components are required to initiate this action plan. Equipment has been acquired and is in the process of being deployed. Storage resources in the Wehner Data Center were installed and all data necessary for service operation is currently replicated from the primary site in the Teague Data Center. The Wehner site can currently operate as a cold site. All services have been virtualized in preparation for Wehner becoming the business continuity site for this service. Upon completion of equipment installations and final network configuration, this service will be highly redundant.

**Established in Cycle:** 2009-2010

**Implementation Status:** Finished

**Priority:** High

**Relationships (Measure | Outcome/Objective):**

**Measure:** Message Services Availability | **Outcome/Objective:** Message Services Objective

**Projected Completion Date:** 12/2012

**Responsible Person/Group:** Cheryl Cato - Infrastructure Systems and Services

### **Campus Network Resiliency**

Uptime measurements for the data center (Teague was 99.97%, Wehner was 100%), message services (99.98%) and internet connectivity (99.997%) exceeded or partially met CIS goals. However, the TechQual+ survey indicated that CIS customer's perceptions of the services were not as good as the actual numbers. Customers do not care why they cannot compute. Any failure (power, electronics, cut lines, insufficient access points, etc.) between the customer and CIS entry points can disrupt service. The plan is to increase the overall campus network resiliency. It is a long-term project that will provide incremental progress as funding permits. Matching grant opportunities have been available to modify CIS' preferred order of implementation. The following description comes from the Strategic Plan for Texas A&M Information Technology, 2011-2015: "Campus Network Resiliency: In the face of infrastructure failures (e.g., loss of power, cooling, electronics, or fiber cuts), the campus computer network must be resilient to meet user mission-critical devices. If a building has power, the network should be operational. Improving network resiliency will require generators at key network hubs and dual fiber optic connections to each major building. Also, complete coverage of campus buildings with the next generation of Wi-Fi (802.11n) will be needed, and WiMAX (802.16d) will be added to support outdoor campus and community needs".

**Established in Cycle:** 2010-2011

**Implementation Status:** In-Progress

**Priority:** High

**Relationships (Measure | Outcome/Objective):**

**Measure:** Data Center Measures | **Outcome/Objective:** Data Center Objective

**Implementation Description:** See above

### **Data Center Improvements**

Additional UPS capacity was installed to improve survivability resulting from power disruptions. To improve cooling reliability, DX units were installed to serve as backup to the single chilled water loop. The new configuration allows for operation on chilled water, DX units, or both and greatly reduce the loss/lag in cooling when switching from primary to backup. This upgrade also included the installation of dual cooling Computer Room Air Conditioners (CRAC) units.

**Established in Cycle:** 2011-2012

**Implementation Status:** Finished

**Priority:** High

**Relationships (Measure | Outcome/Objective):**

**Measure:** Data Center Measures | **Outcome/Objective:** Data Center Objective

**Implementation Description:** A second electrical feeder to the Teague Data Center would eliminate power source single point of failure. Proposed is the additional of a direct utility feed from the switching center. This project is in the engineering study phase, and completion is dependent on adequate funding and sufficient resources and support from TAMU Energy Services.

**Responsible Person/Group:** Cheryl Cato, Infrastructure Systems and Services

## **Analysis Questions and Analysis Answers**

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### **What changes are you planning to make based on what you learned last year from your findings? What findings did you use to determine this?**

The demand for computing services is increasing. Students are arriving on campus with multiple devices which is causing an increase in demand for network connections, as well as additional power, servers, and storage. We plan on increasing access points (network connectivity), equipment (servers and storage), network bandwidth (speed), and redundancy (power, cooling, servers, and data). The TechQual+ survey indicated that CIS customer's perception of IT services were not as good as the actual numbers. Customers do not care why they cannot compute. Any failure (power, electrical, cut lines, insufficient access points, etc) between the customer and CIS entry point can disrupt services.

## **Detailed Assessment Report 2011-2012 Educational Broadcast Services**

*As of: 12/11/2013 04:12 PM EST*

**(Includes those Action Plans with Budget Amounts marked One-Time, Recurring, No Request.)**

### **Mission / Purpose**

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Educational Broadcast Services operates the Trans Texas Videoconference Network (TTVN), which is the Wide Area data Network (WAN) for the Texas A&M University System. The mission of TTVN is to provide premiere wide area network communications and a related portfolio of shared services to the Texas A&M System and affiliated organizations.

TTVN's mission relates to TAMU Vision 2020 Imperative 7 (Increase Access to Knowledge Resources). In particular, it relates to the precept "Lead in Information Technology". The TTVN Network is the fundamental architecture on which virtually all of the university computing communications technologies are transmitted to the outside world. The speed and reliability of this network is critical for TAMU to develop and maintain a leadership role in Information Technology.

### **Goals**

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#### **G 1: Network Backbone Reliability of 100%**

Operate a wide area data network backbone that provides 100% reliability to TAMU and TAMUS campuses connected to the backbone.

#### **G 2: Provide Monthly Reliability Measure to Telecommunication Council**

Provide an accurate tool to track the monthly reliability of the TTVN backbone and present this data to the TAMUS Telecommunications Council.

#### **G 3: BTOP Grant Fiber to System Campuses**

Deploy BTOP grant fiber to system campuses to enable a minimum of 1 Gbps bandwidth capacity to each.

## Other Outcomes/Objectives, with Any Associations and Related Measures, Targets, Findings, and Action Plans

### **O/O 1: Network Architecture with 99.999% uptime**

Strive for a minimum of 99.999% annual uptime (reliability); reported as the percent of time in a month that the network was up. This is a best practice benchmark for commercial internet services providers.

#### Relevant Associations:

##### **Institutional Priority Associations**

- 5 Enhance course delivery via technology-mediated instruction.

##### **Strategic Plan Associations**

###### **Texas A&M University**

- 6 Diversify and globalize the A&M community.
- 7 Increase access to intellectual resources.
- 9 Build community and metropolitan connections.
- 11 Attain resource parity with the best public universities.

#### Related Measures

##### **M 1: Backbone Reliability Reports**

Track each second of down time on the backbone and summarize in a monthly report. Keep a cumulative chart of the percent of uptime each month. This is a benchmarking or best practice used by commercial ISP providers.

Source of Evidence: Benchmarking

##### **Target:**

99.999% uptime of TTVN Backbone over 1 year.

##### **Finding (2011-2012) - Target: Partially Met**

This objective was only partially met. Uptime for the months of September, December, and January were less than 99.999. All other months were at 100%. The final average uptime for FY 2012 was 99.977.

##### **Connected Document**

[Backbone Reliability Chart 2012](#)

##### Related Action Plans (by Established cycle, then alpha):

###### **Monthly Reliability Reports**

*Established in Cycle:* 2008-2009

To track network reliability, monthly reports will be presented to the TAMUS Telecommunications Council. The reports will show ...

###### **Clearer Communication with LEARN**

*Established in Cycle:* 2011-2012

In FY2012, the largest downtime was due to an unclear communication with LEARN as LEARN was attempting to add a new leg to the N...

For full information, see the *Details of Action Plans* section of this report.

### **O/O 2: Reliability Measurement tool for tracking and presentation of backbone uptime**

Use the existing network measurement tool to present backbone uptime to the TAMUS Telecommunications Council. Update / refine as needed.

#### Relevant Associations:

##### **Institutional Priority Associations**

- 5 Enhance course delivery via technology-mediated instruction.

##### **Strategic Plan Associations**

###### **Texas A&M University**

- 6 Diversify and globalize the A&M community.
- 7 Increase access to intellectual resources.
- 9 Build community and metropolitan connections.
- 11 Attain resource parity with the best public universities.

#### Related Measures

##### **M 2: Reliability Graphs posted to TTVN website**

The tool will be used to track monthly uptime percentages of the backbone. Output will be a bar chart for each month of the fiscal year showing percent of uptime for each month and an annualized uptime for the year. Each graph will be posted within the "Council Status Report Presentation" under the Reports/Metrics section of the TTVN web site.

Source of Evidence: Document Analysis

##### **Target:**

12 graphs of reliability statistics presented to the TTVN Telecommunications Council and documented by posting to the TTVN website.

##### **Finding (2011-2012) - Target: Met**

The TAMUS Telecommunication met each month except July. The July report was noted in in e-mail and was posted as usual on the TTVN website. All 12 reports were thus reported as suggested in the target.

Documentation of the reports can be found at the following website: <http://ttvn.tamu.edu/Index.php?p=Reports>

##### **Connected Document**

[Reliability Report Summary to Council Fy 12](#)

##### Related Action Plans (by Established cycle, then alpha):

###### **Monthly Reliability Reports**

*Established in Cycle:* 2008-2009

To track network reliability, monthly reports will be presented to the TAMUS Telecommunications Council.

The reports will show ...

For full information, see the *Details of Action Plans* section of this report.

**O/O 3: 40% of the campuses at 1 gig**

Continue BTOP project to bring on at least 40% of the System campuses at 1 Gbps.

**Relevant Associations:**

**Institutional Priority Associations**

5 Enhance course delivery via technology-mediated instruction.

**Strategic Plan Associations**

**Texas A&M University**

6 Diversify and globalize the A&M community.

7 Increase access to intellectual resources.

9 Build community and metropolitan connections.

11 Attain resource parity with the best public universities.

**Related Measures**

**M 3: TEXASpipes Website Progress Report**

Updated Measure 7-3-12. The Texaspipes.tamu.edu website does not provide easily documentable information regarding the specific connections to system campuses. Rather, it reports the progress of the number of fiber miles to the campus. Thus, the updated measure will be a document of the Director of Telecommunications at TAMU listing those campuses where the fiber installation is complete. This document will be uploaded to WEAVE in August. 9-21-12 - Document for Telecom received and uploaded to WEAVE.

Source of Evidence: Document Analysis

**Target:**

Connect 40% of campuses during FY11

**Finding (2011-2012) - Target: Met**

This goal was met for FY 11. Below is a list of campuses. Those marked with a \* indicate fiber has been constructed to the campus. PVAMU TAMHSC \* TAMIU TAMU Riverside \* TAMUC TAMUCC \* TAMUCT \* TAMUG \* TAMUK TAMUSA \* TAMUT TSU WTAMU Campus = 13 Connected= 6 % connected = 46% GOAL MET NOTE: TAMUHSC is a part of the Riverside Fiber TAMUG BTOP fiber complete as far as we are concerned, but awaiting University of Texas construction for final operation. BTOP to TAMUG was a bore from the campus under the ship channel to a point on the Port of Galveston property where UT fiber will connect when their project is finished.

**Connected Document**

[BTOP Status Certified by Telecom for FY 12](#)

**Related Action Plans (by Established cycle, then alpha):**

**BTOP Grant Construction**

*Established in Cycle:* 2010-2011

Construction of BTOP fiber to system campuses. BTOP award was made in August, 2010

For full information, see the *Details of Action Plans* section of this report.

**Details of Action Plans for This Cycle (by Established cycle, then alpha)**

**Monthly Reliability Reports**

To track network reliability, monthly reports will be presented to the TAMUS Telecommunications Council. The reports will show the percent of uptime for the TTVN backbone.

**Established in Cycle:** 2008-2009

**Implementation Status:** In-Progress

**Priority:** High

**Relationships (Measure | Outcome/Objective):**

**Measure:** Backbone Reliability Reports | **Outcome/Objective:** Network Architecture with 99.999% uptime

**Measure:** Reliability Graphs posted to TTVN website | **Outcome/Objective:** Reliability Measurement tool for tracking and presentation of backbone uptime

**Implementation Description:** Implementation of this action plan involves EBS staff in the following manner. TTVN engineering senior management must work on a continuing basis with fiber providers such as LEARN, AT&T, TLSN, etc. to insure fiber maintenance is done within maintenance windows. Next, EBS staff must actually monitor uptime on all backbone circuits, and report this uptime monthly utilizing the tool staff has developed and continues to refine.

**Projected Completion Date:** 08/2012

**Responsible Person/Group:** Wayne Pecena

**BTOP Grant Construction**

Construction of BTOP fiber to system campuses. BTOP award was made in August, 2010

**Established in Cycle:** 2010-2011

**Implementation Status:** In-Progress

**Priority:** High

**Relationships (Measure | Outcome/Objective):**

**Measure:** TEXASpipes Website Progress Report | **Outcome/Objective:** 40% of the campuses at 1 gig

**Implementation Description:** Expend grant funds to construct fiber to system campuses. Contract this work with fiber vendors. TTVN staff will provide connectivity via the fiber as it is completed. TAMU Telecom will manage construction and requisition of equipment. TTVN will act as financial management and Project Director. One new engineering staff member at Telecom has been hired through grant resources (80% grant, 20% Telecom)

**Projected Completion Date:** 07/2013

**Responsible Person/Group:** TTVN, (Rodney Zent, PI) Telecom (Walt Magnussen, Project Manager)

### Clearer Communication with LEARN

In FY2012, the largest downtime was due to an unclear communication with LEARN as LEARN was attempting to add a new leg to the Network. LEARN felt they had communicated the proposed downtime to TTVN, and TTVN believed the downtime would not impact TTVN. Subsequent discussion between TTVN staff and LEARN officials has already taken place but an even more concentrated effort will be put in place by TTVN staff to insure accurate interpretation of the messages. In addition, TTVN assistant Director Wayne Pecena will continue to attend the weekly teleconference call between LEARN, UT, TTVN and stress the importance of working only in the maintenance window of midnight to 6am.

**Established in Cycle:** 2011-2012

**Implementation Status:** In-Progress

**Priority:** High

**Relationships (Measure | Outcome/Objective):**

**Measure:** Backbone Reliability Reports | **Outcome/Objective:** Network Architecture with 99.999% uptime

## Analysis Questions and Analysis Answers

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### What changes are you planning to make based on what you learned last year from your findings? What findings did you use to determine this?

We believe that although difficult to achieve, a 99.999% uptime goal is still an important goal to achieve. After analyzing the data collected for this year, it appears that the equipment and associated redundancy built into the network architecture can achieve the goal. Our findings indicate that human factors have contributed to the down time. The network is a partnership with the University of Texas. TTVN maintains that work on the network should only be done only in the maintenance window between midnight at 6am. Downtime during this window does not count in the uptime goal. We further found that our UT partners do not, at times, subscribe to this practice. We have communicated our displeasure regarding this, and have concentrated TTVN staff efforts in more clearly demanding to know when work is to be performed that affects TTVN and that work be scheduled during the maintenance window. Additionally, our network carrier is LEARN. Upon analysis of a major outage caused by a LEARN installation event, we found that the written communication between LEARN and its subscribers was unclear. TTVN has worked with LEARN to improve the clarity of the communications and also communicated that whenever possible this type of work be done in the maintenance window. Finally, with regard to the BTOP fiber project, our first year of measurement found a flaw in the plan to use the TTVN Website as documentation of completion of the project. Our goal was to measure number of campuses completed. The website, tied to NTIA grant convention, measures the number of miles of fiber constructed. Thus, we have changed our measurement to a documented memoranda that indicates which campus connections are complete. This memo is certified by the Principle Investigator of the Project. It was felt that measuring campus completions was more meaningful than number of fiber miles completed.

## Annual Report Section Responses

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### Program Contributions

EBS continues to significantly contribute to the university 2020 imperative "Lead in Information Technology" in FY 2012. The importance of network connectivity continues to increase as we depend more and more on networked computers to host Student Management Systems, Videoconferencing facilities for distance learning, faculty collaboration, and administrative meetings, to name just three. Students are coming to campus with more and more devices that require network connectivity. A majority of all wireless communications within the system eventually travels over the TTVN wide area network to reach a final destination. We are proud that we are not behind the curve in either capacity or reliability and will continue to move forward as technology expands to more and more facets of the university system.

## Detailed Assessment Report 2011-2012 Enterprise Information Services

*As of: 12/11/2013 04:12 PM EST*

**(Includes those Action Plans with Budget Amounts marked One-Time, Recurring, No Request.)**

## Mission / Purpose

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The Enterprise Information Systems (EIS) department is responsible for the mission-critical, enterprise-wide information systems at Texas A and M University. The team manages the Compass system for the university's three campuses in College Station, Galveston, and Qatar. The university purchased the system, a software product called Banner, from SunGard Higher Education. To improve reporting capabilities, the EIS project team is also responsible for maintaining the SunGard Higher Education Operational Data Store (ODS). Additionally, the project team maintains a web portal that serves as the "front door" for Compass end-users. Compass and Howdy provide access to mission-critical information to faculty, advisors, staff and students in support of Vision 2020 imperatives 1, 2, 3, 6, and 7. Argos provides a mechanism for departments to create customized reports to evaluate their programs. The Enrollment Management tool is designed to assist in recruitment and tracking of contacts with potential students, also in support of Vision 2020.

## Goals

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### G 1: Meet the needs of the campus community and make Compass and Howdy easier to use.

Achieving the goals listed below will contribute to the attainment of Vision 2020 Imperatives 1, 2, 3, 6, & 7. Compass and Howdy are used by the campus community including faculty, staff, and students for a wide range of functions. Continuing to enhance Compass and Howdy to serve the needs to the campus is a top priority for EIS. 1. Ensure EIS has sufficient staff and other resources to complete work requirements as quickly as possible. 2. Work closely with functional departments and the broader campus community to ensure that all needs are identified and met.

### G 2: Support the reporting needs of the campus community.

Achieving the goals listed below will contribute to the attainment of Vision 2020 Imperatives 1, 2, 3 & 7, which will be enhanced by enabling the colleges and academic units to analyze data related to their academic programs. The colleges and other departments will have direct access to Compass data. Previously, all data requests required an EIS programmer's effort.

### G 3: Make improvements in Howdy to assist students to complete their degree requirements in accordance with TEC §51.9685.

Achieving the goals listed below will contribute to the attainment of Vision 2020 Imperatives 1, 3, and 7, which will be enhanced by enabling students to improve their undergraduate degree planning experience.

## Other Outcomes/Objectives, with Any Associations and Related Measures, Targets, Findings, and Action Plans

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### **O/O 1: Meeting campus community needs within Compass and Howdy.**

1. Ensure EIS has sufficient staff and other resources to complete work requirements as quickly as possible by working under the guidance of the EIS Steering and Executive committees and the Vice President and Associate Provost for Information Technology. 2. Work closely with functional departments and the broader campus community to ensure that all needs are identified and met. This is accomplished through the Compass Advisor User Group Committee, electronic newsletters and Primary Authorizing Agent (PAA) meetings. These groups allow us to communicate with stakeholders to discover and discuss the needs.

#### **Relevant Associations:**

Vision 2020 Imperatives 1, 2, 3, 6, & 7

#### **Institutional Priority Associations**

6 Provide high-quality advising for all students.

#### **Related Measures**

##### **M 1: Quantitative aspects of this issue.**

(1) Total number of Compass Work Requests received to date (July - June): XXX (2) Total number of work requests completed or no longer pending (July - June): XXX

Source of Evidence: Activity volume

#### **Target:**

EIS will complete 70% of Compass Work Requests received to meet the needs of the campus community making Compass and Howdy easier to use.

#### **Finding (2011-2012) - Target: Met**

Between July 1, 2011 and June 29, 2012, EIS completed 86% of requests for data feeds, reports and improvements to functionality received. Of 519 requests received, 448 have been completed or are no longer pending.

#### **Related Action Plans (by Established cycle, then alpha):**

##### **Compass and Howdy Enhancements**

*Established in Cycle:* 2010-2011

EIS will continue to complete Compass Work Requests to provide data to meet campus reporting needs. We will continue to insure ...

For full information, see the *Details of Action Plans* section of this report.

### **O/O 2: Meeting the reporting needs of the campus community.**

1. Create a reporting database and the associated technical infrastructure needed to support campus-wide reporting. 2. Complete the Compass Reporting Pilot Program and expand access to the campus community through additional classes and open access labs in which previous attendees can obtain help to create queries.

#### **Relevant Associations:**

Vision 2020 Imperatives 1, 2, 3 & 7

#### **Strategic Plan Associations**

Texas A&M University

11 Attain resource parity with the best public universities.

12 Meet our commitment to Texas.

#### **Related Measures**

##### **M 2: Quantitative aspects of this issue.**

(1) Total number of Argos Reporting Training Sessions offered Aug. - July : XXX (2) Total number of Argos Reporting Training attendees: XXX (3) Total number of open lab sessions for prior Argos Reporting Training attendees (Aug. - July ): XXX Additional Argos Reporting Training sessions will be offered in each semester. Open lab sessions will be offered to allow additional support in developing departmental reports.

Source of Evidence: Activity volume

#### **Target:**

(1) Between August 2012 and July 2013, EIS plans to offer 4 additional training sessions for faculty and staff: 2 in the Fall and 2 in the Spring. Each session will total 8 hours of training. Two of the classes will be for non-technical staff and two will be for staff with a technical background. members. (2) Open Lab sessions for past course attendees will be offered to provide assistance on creating reports.

#### **Finding (2011-2012) - Target: Met**

Between August 2011 and July 2012, EIS held two Argos Reporting Training sessions of 5 two-hour sessions each. The Fall 2011 class had 26 participants and the Spring 2012 class had 21 for a total of 47 participants. EIS provided 12 two-hour Open Lab sessions for previous participants to obtain assistance in writing their reports.

#### **Related Action Plans (by Established cycle, then alpha):**

##### **Compass Reporting Program**

*Established in Cycle:* 2010-2011

The Compass Reporting Program will be continued this fall with additional classes. This year classes will be offered for both I...

For full information, see the *Details of Action Plans* section of this report.

### **O/O 3: Improve student use of Howdy**

Improve student use of Howdy related to degree planning. 1. Make improvements to the baseline CAPP program to address "best-fit" issues for core curriculum requirements. The baseline program does not always use courses in an optimal way to meet a specific student's degree requirements. 2. Begin work on a pilot of the planning tool to allow students to better plan courses to meet degree requirements as quickly as possible. 3. Begin planning enhancements of the planning tool with additional features desired by students and advisors such as an advisor view of the student's degree plan.

#### Relevant Associations:

##### **Institutional Priority Associations**

6 Provide high-quality advising for all students.

##### **Strategic Plan Associations**

Texas A&M University

3 Enhance the Undergraduate Academic Experience.

12 Meet our commitment to Texas.

#### Related Measures

##### **M 3: Quantitative Aspects of the Degree Plan Project**

1. Complete baseline changes to CAPP for the best-fit issue. 2. Complete a design document of the pilot and review with the AOC Deans and advisors. 3. Include at least 5 significant enhancements in the design document. 4. Hire a Records Functional Analyst who will assist in the degree plan effort.

Source of Evidence: Administrative measure - other

##### **Target:**

EIS will complete all four of the quantitative items in FY12 and will work on additional steps such as completing a pilot of the planning tool in FY13.

##### **Finding (2011-2012) - Target: Met**

This goal was established and added to the assessment in the summer of 2012. EIS will have findings to report for the next reporting year.

### Details of Action Plans for This Cycle (by Established cycle, then alpha)

#### **Compass and Howdy Enhancements**

EIS will continue to complete Compass Work Requests to provide data to meet campus reporting needs. We will continue to insure that there is sufficient staff to support the needs and have been approved to purchase additional SunGard consulting for technical support.

**Established in Cycle:** 2010-2011

**Implementation Status:** Finished

**Priority:** High

**Relationships (Measure | Outcome/Objective):**

**Measure:** Quantitative aspects of this issue. | **Outcome/Objective:** Meeting campus community needs within Compass and Howdy.

**Projected Completion Date:** 08/2012

**Responsible Person/Group:** Ramesh Kannappan

#### **Compass Reporting Program**

The Compass Reporting Program will be continued this fall with additional classes. This year classes will be offered for both Intro and Advanced level users.

**Established in Cycle:** 2010-2011

**Implementation Status:** Finished

**Priority:** High

**Relationships (Measure | Outcome/Objective):**

**Measure:** Quantitative aspects of this issue. | **Outcome/Objective:** Meeting the reporting needs of the campus community.

**Projected Completion Date:** 08/2012

**Responsible Person/Group:** Ramesh Kannappan

#### **Degree Plan Effort**

EIS will continue to work on designing and developing the undergraduate degree planner with the assistance of the academic community including the AOC deans and academic advisors. We will ensure that sufficient functional and technical resources are assigned to this strategic, high priority project.

**Established in Cycle:** 2011-2012

**Implementation Status:** Planned

**Priority:** High

**Projected Completion Date:** 08/2014

**Responsible Person/Group:** Ramesh Kannappan, EIS

### Analysis Questions and Analysis Answers

#### **What changes are you planning to make based on what you learned last year from your findings? What findings did you use to determine this?**

For 2012-2013, we intend to offer two levels of Argos Training classes: an Intro and an Advanced level. This will enable us to provide basic training to some while providing more technically advanced level classes for those with stronger technical abilities and more complex reporting needs. This change is based on the needs discovered in the Argos training courses reported in Goal and Findings #2. In addition, EIS has received feedback from colleges and departments and is making adjustments to our Degree Planning solution as detailed in Goal #3.

## 2011-2012 Instructional & Media Services

As of: 12/11/2013 04:12 PM EST

(Includes those Action Plans with Budget Amounts marked *One-Time, Recurring, No Request.*)

### Mission / Purpose

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Instructional Media Services (IMS) strives to enhance the classroom teaching experience for the faculty and students through the use of multimedia equipment in the Registrar Controlled Classrooms at TAMU. Our role is to provide consistency throughout classrooms at TAMU so that the faculty and students can feel comfortable with the technology provided. In order to fulfill this task, IMS installs computers and multimedia equipment, as well as maintains, develops, programs, and refines the equipment and systems under their control.

### Goals

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#### **G 1: QUALITY OF SERVICE**

1. Provide the standard multimedia presentation equipment that is well maintained and in working order, for the Registrar controlled classrooms placed under IMS control. 2. Provide software support in IMS controlled classrooms identical to what is in the student computing labs within CIS. 3. Ensure the least amount of down time due to equipment malfunctions or software patches. 4. Provide fast and efficient technical service to the faculty at all times.

### Other Outcomes/Objectives, with Any Associations and Related Measures, Targets, Findings, and Action Plans

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#### **O/O 1: Minimal Equipment Downtime**

IMS seeks to maintain and upgrade equipment in the classrooms under their control. This minimizes time lost to aging equipment or parts.

#### Related Measures

##### **M 1: Equipment Usage**

In the latter part of spring 2012, we queried the instructors on the actual usage of equipment during that semester.

Source of Evidence: Service Quality

##### Target:

The computer and data projector usage remains the same at 97%. The video equipment usage is showing a steadily decline. This year's survey records that only 15% used the DVD player; however, 74% indicated that they would use the drive in the computers. An additional 5% used the VHS players in the classrooms. Upon this assessment, we will slowly eliminate DVD and VHS players. The decline in usage has been steady the last three years. The overhead projector had a usage rate of 10%, whereas 76% stated that they would use the document camera instead. The usage of overhead projectors is also steadily declining, whereas interest in the document camera is increasing. The Smart Symposium had a usage rate of 44%; this percentage is about the same from years past. The Classroom Performance System clickers (CPS) had a usage of only 2%, while the iClickers had a usage rate of 5%. Thirty-seven percent displayed an interest in using the clickers and 73% agreed to attend the training offered by Instructional Technology Services (ITS).

##### Finding (2011-2012) - Target: Met

The computer and data projector are still being heavily used. In the area of video players IMS discovered that the DVD player is steadily declining and very few are even using the VHS players. As a result of this IMS will not install a DV/VHS player in upcoming classrooms. All classrooms will always have a port to bring in a portable DVD/VHS player if it is requested. All DVD will be played through the IMS computers. Even though the overhead (transparency) projector is declining; this particular piece of equipment is not connected into our automated system. So we will continue to have overhead projectors on hand or the "dead hard" users. The percentage of the Smart Symposium users is about the same. We will continue to encourage users to attend the training offered by ITS. Seventy-six percent did agree to attend the training. The usage of the Classroom Performance System (CPS) is about the same. IMS has the receivers installed in all of their classrooms. A small percentage currently still usages the CPS system. Eighty percent had a positive experience. The new systems, the iClickers, were introduced to the campus. A small percentage reported an 80.00% positive experience with this system also. ITS offers training on the new implement iClicker system. We will act as a liaison and encourage faculty to attend the training offered by ITS.

##### **M 2: Software Usage**

Query instructors of record in IMS supported classrooms for the 2012 spring term as to the actual usage of the software in the classrooms under IMS control. Measure software down time due to malfunctions or software patches.

Source of Evidence: Administrative measure - other

##### Target:

IMS software, the usage results were as follows: MS PowerPoint 85%, Adobe Reader 53%, and Smart Notebook 10%. In the area of Real players the usage results were as follows: MS Media Player 31%, RealPlayer Media Player 19%, and VLC Player 12%. Twenty five percent used other software and 2% did not use any software. The software usage remains the same from past years. IMS invited the participants to list other software that is used, but was not specifically listed on the survey. Twenty-five of the faculty responded that they use the following software: Web Browsers, Microsoft Office and Departmental Software (i.e. MatLab, SPSS, one user of Echo 360 software, etc.). The results for the lecture capturing software were as follows: Camtasia and or Camtasia Relay had only 7.00% usage, whereas Centra had a 2% usage. The usage is about the same from past years.

##### Finding (2011-2012) - Target: Met

The software usage averages around the same as last year. IMS and the open access student computing labs offer the same software package. The software is being utilized with PowerPoint continually being the heaviest in usage.

##### **M 3: Downtime**

We charted equipment usage and the time lost due to malfunctions. This year we actually had the faculty select if the downtime was equipment related or computer/software related.

Source of Evidence: Administrative measure - other

**Target:**

We charted equipment usage and the time lost due to malfunctions. This year we listed the two major contributing factors that can cause downtime separately, specifically the data projector malfunctioning and computer/software issues. Eighteen percent of the faculty experienced downtime due to the data projector malfunctioning; 50% reported computer/software issues. Upon further analysis it was discovered that 32% of the faculty experience no down time while using the computer and 66% experienced no downtime while using the data projectors and or other components (DVD Player, Doc Camera, Smart Sympodium, VHS Player). Fifty-five percent of the faculty experienced downtime of less than an hour due to the computer/software issues; and 29% experience down time of less than an hour due to the data projector or other components. By separating the two categories and matching the comments, we were able to target the specific areas of downtime.

**Finding (2011-2012) - Target: Met**

IMS continues to make improvements in getting the equipment working as quickly as possible. This year on the survey, we asked more specific questions as far as equipment failure. We separated the computer/software issues from the equipment issues. Eighteen percent of the faculty experienced downtime due to the data projector malfunctioning; 50% reported computer/software issues. Upon further analysis it was discovered that 32% of the faculty experience no down time while using the computer and 66% experienced no downtime while using the data projectors and or other components (DVD Player, Doc Camera, Smart Sympodium, VHS Player). Fifty-five percent of the faculty experienced downtime of less than an hour due to the computer/software issues; and 29% experience down time of less than an hour due to the data projector or other components. By separating the two categories and matching the comments, we were able to target the specific areas of downtime. IMS has already begun implementing three things that will give us a more accurate rate of downtime and eliminate some of the lost class time. We will implement these, as well as send out a survey to our users. First, IMS has implemented, for the fall, a new programming system from AMX. The software is called Resource Management Suite or RMS. This software will replace about 70% of our old operations system. It will also allow us to "measure" the following: lamp hours; source usage by room, building and devices (PC, Laptop, Doc Camera, DVD/Blu-ray) and media center; DVX connection uptime/downtime; and power usage (exact usage with rooms with a PDU and a close estimate in ones without). IMS has been successful in getting the classrooms back on line, when problems occur. Now we will have a better means to measure that progress. Second, we will start tracking our Keystones, or trouble tickets. We will monitor their openings and closings. RMS and the close monitoring of the keystones will give much needed data to support our efforts. And last, IMS is working very closely with LSS during the re-imaging process of our computers. The close coordination with LSS will also minimize classroom downtime due to software glitches that occur during the re-imaging process. This was instituted after our latest survey. As a result the summer re-imaging went very well.

**M 4: Customer Service**

IMS asked the faculty to rate the services of each Media Center (Blocker, Harrington, and the West Campus Media). The rating was on a scale of one to ten, in which ten was the highest rating. This year we also asked the faculty to rate our Department as a whole.

Source of Evidence: Administrative measure - other

**Target:**

Again in this category, we asked some new specific questions concerning our services overall as a department. From this series of questions, 49% reported problems. Ninety-three percent reported that we responded in a timely manner. Ninety – four percent reported that we understood their problem and 82% responded that the problem was resolved or a solution was found. Ninety-nine percent reported that our staff reacted in a professional manner. Then each individual center was rated Blocker, Harrington, and the West Campus Media. The rating was on a scale of one to ten, in which ten was the highest rating. The overall approval rating for each center is as follows: Blocker Media Center - 8.54, Harrington Media Center - 8.59, and the West Campus Media Center – 8.40.

**Finding (2011-2012) - Target: Met**

We, again, did something different on the survey. We asked the participants to rate us as department and then rate each individual center. Forty-nine reported problems to our centers. Ninety-three percent reported that we responded in a timely manner. Ninety – four percent reported that we understood their problem and 82% responded that the problem was resolved or a solution was found. Ninety-nine percent reported that our staff reacted in a professional manner. Then each individual center was rated Blocker, Harrington, and the West Campus Media. The rating was on a scale of one to ten, in which ten was the highest rating. The overall approval rating for each center is as follows: Blocker Media Center - 8.54, Harrington Media Center - 8.59, and the West Campus Media Center – 8.40.

**Details of Action Plans for This Cycle (by Established cycle, then alpha)**

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**Continue to hold training sessions on classrooms that have new installs.**

IMS holds training sessions for faculty in any new install. On the first day of classes, we follow up with one-on-one training with the faculty, as requested.

**Established in Cycle:** 2010-2011

**Implementation Status:** In-Progress

**Priority:** High

**Implementation Description:** Once a classroom is complete, IMS offers training for that department, as requested.

**Responsible Person/Group:** Full time employees and student technicians.

**Usage and Downtime**

Rely on RMS and the Keystones to better gauge downtime lost to equipment or computer/software issues. Will use this in conjunction with annual surveys.

**Established in Cycle:** 2011-2012

**Implementation Status:** Planned

**Priority:** High

**Implementation Description:** RMS will be on ongoing, this is our new programming system. This software package was purchased from AMX. RMS was implemented this fall.

**Responsible Person/Group:** IMS Staff

## Analysis Questions and Analysis Answers

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### What changes are you planning to make based on what you learned last year from your findings? What findings did you use to determine this?

First, IMS has implemented, for the fall, a new programming system from AMX. This software is called Resource Management Suite or RMS. This software will replace about 70% of our old operations system. It will also allow us to "measure" our classroom downtime. IMS has been successful in getting the classrooms back on line, when problems occur. Now we will have a better means to measure that progress. Second, we will start tracking our Keystones, or trouble tickets. We will monitor their openings and closings. RMS and the close monitoring of the keystones will give much needed data to support our efforts. And last, IMS is working very closely with LSS during the re-imaging process of our computers. These will also eliminate classroom downtime due to software glitches that occur during the re-imaging process. This was instituted in May and has worked very well. After reviewing this year's (2012) survey, we decided that it was time to implement all three of the above steps.

## Detailed Assessment Report 2011-2012 Instructional Technology Services

*As of: 12/11/2013 04:12 PM EST*

**(Includes those Action Plans with Budget Amounts marked One-Time, Recurring, No Request.)**

### Mission / Purpose

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Instructional Technology Services, a department of Texas A&M Information Technology, delivers professional development opportunities, administers educational technology resources, and empowers instructors to use best practices in higher education to enhance student learning through the use of technology at Texas A&M University.

### Goals

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#### **G 1: User Application Quality and Reliability**

Provide high quality and reliable instructional technology applications for customer usage.

#### **G 2: Business Continuity and Disaster Recovery**

Maintain business continuity and disaster recovery procedures.

### Other Outcomes/Objectives, with Any Associations and Related Measures, Targets, Findings, and Action Plans

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#### **O/O 1: Provide High Quality Training.**

Ensure the scope of training provided satisfactorily meets constituent needs.

##### **Strategic Plan Associations**

##### **Texas A&M University**

- 1 Elevate our faculty in their teaching, research and scholarship.
- 2 Strengthen our graduate programs.
- 3 Enhance the Undergraduate Academic Experience.

### Related Measures

#### **M 1: Constituent Survey**

An annual survey of ITS customers to assess overall satisfaction with training and support services provided, system availability and system response.

Source of Evidence: Client satisfaction survey (student, faculty)

##### **Target:**

93% or more of ITS customers, who respond to the satisfaction survey, will rate their level of satisfaction with training events as satisfied or better.

##### **Finding (2011-2012) - Target: Not Met**

79% of workshop attendees, who submitted a survey response, indicated they were satisfied with training from ITS.

##### **Related Action Plans (by Established cycle, then alpha):**

##### **Expand/Revise Survey Topics**

*Established in Cycle: 2011-2012*

Surveys on ITS Help will be revised to include additional questions such as those related to specific products supported by ITS ...

For full information, see the *Details of Action Plans* section of this report.

#### **M 6: Workshop Participant Survey**

Workshop participants will be surveyed to assess satisfaction with workshop content, instructor, etc.

Source of Evidence: Client satisfaction survey (student, faculty)

##### **Target:**

95% of survey responses will indicate satisfaction with workshops.

##### **Finding (2011-2012) - Target: Not Met**

79% of workshop attendees, who submitted a survey response, indicated they were satisfied with training from ITS.

##### **Related Action Plans (by Established cycle, then alpha):**

##### **Expand/Revise Survey Topics**

*Established in Cycle: 2011-2012*

Surveys on ITS Help will be revised to include additional questions such as those related to specific

products supported by ITS ...

For full information, see the *Details of Action Plans* section of this report.

## **O/O 2: Provide Technical Support Which Meets Constituent Needs.**

Satisfactorily resolve requests for assistance.

### **Strategic Plan Associations**

#### **Texas A&M University**

- 1 Elevate our faculty in their teaching, research and scholarship.
- 2 Strengthen our graduate programs.
- 3 Enhance the Undergraduate Academic Experience.

### **Related Measures**

#### **M 1: Constituent Survey**

An annual survey of ITS customers to assess overall satisfaction with training and support services provided, system availability and system response.

Source of Evidence: Client satisfaction survey (student, faculty)

#### **Target:**

93% or more of ITS customers, who respond to the satisfaction survey, will rate their level of satisfaction with support services as satisfied or better.

#### **Finding (2011-2012) - Target: Met**

There were two type of customer surveys administered during the year. 3474 valid issues were submitted by customers to ITS Help 08/01/2011-07/31/2012. A satisfaction survey is automatically sent to the submitter via email when the issue status is set to closed. 637 survey responses were received, for a return rate of 18%. 95% of survey respondents indicate they were satisfied with the timeliness of the initial response to their request. 94% of survey respondents indicated they were satisfied with the timeliness of the resolution to their request. Issues generated from the receipt of SPAM email and other non-customer contacts were deemed invalid and omitted from the statistics. An annual survey of ITS customers was distributed in spring 2012. Respondents were asked to rate satisfaction with ITS regarding customer support service in 5 areas. Responses showed the following satisfaction rates: Initial Response: 97% Friendliness: 98% Professionalism: 99% Helpfulness: 98% Resolution of Issue: 97%

#### **Related Action Plans (by Established cycle, then alpha):**

##### **Expand/Revise Survey Topics**

*Established in Cycle: 2011-2012*

Surveys on ITS Help will be revised to include additional questions such as those related to specific products supported by ITS ...

##### **Raise Target for Customer Satisfaction**

*Established in Cycle: 2011-2012*

The target of 93% will be increased for the upcoming year.

For full information, see the *Details of Action Plans* section of this report.

#### **M 3: Service Desk Response Time SLA Report**

SLA Reports generated from Numara Footprints showing the number of issues meeting or breaching service level agreements for response time.

Source of Evidence: Efficiency

#### **Target:**

95% of survey respondents will indicate satisfaction with Service Desk initial response time.

#### **Finding (2011-2012) - Target: Partially Met**

3474 valid issues were submitted by customers to ITS Help 08/01/2011-07/31/2012. A satisfaction survey is automatically sent to the submitter via email when the issue status is set to closed. 637 survey responses were received, for a return rate of 18%. 92% of survey respondents indicate they were satisfied with the timeliness of the initial response to their request. Issues generated from the receipt of SPAM email and other non-customer contacts were deemed invalid and omitted from the statistics. An annual survey of ITS customers was distributed in spring 2012. Respondents were asked to rate satisfaction with ITS regarding customer support service in 5 areas. Responses showed the following satisfaction rates: Initial Response: 97% Friendliness: 98% Professionalism: 99% Helpfulness: 98% Resolution of Issue: 97%

#### **Related Action Plans (by Established cycle, then alpha):**

##### **Add Resources to Improve Satisfaction with Timeliness**

*Established in Cycle: 2011-2012*

In order to meet the goal for customer satisfaction with timeliness of initial response and eventual resolution to service reque...

##### **Expand/Revise Survey Topics**

*Established in Cycle: 2011-2012*

Surveys on ITS Help will be revised to include additional questions such as those related to specific products supported by ITS ...

For full information, see the *Details of Action Plans* section of this report.

#### **M 4: ITS Help Customer Survey**

A satisfaction survey is sent to each customer when the issue is closed. Survey responses are anonymous and optional.

Source of Evidence: Client satisfaction survey (student, faculty)

#### **Target:**

95% of responses will show an average rating of satisfied or better.

#### **Finding (2011-2012) - Target: Partially Met**

3474 valid issues were submitted by customers to ITS Help 08/01/2011-07/31/2012. A satisfaction survey is automatically sent to the submitter via email when the issue status is set to closed. 637 survey responses were received, for a return rate of 18%. Responses indicated an overall satisfaction rate of 94% related to timeliness of response and resolution of service requests. Issues generated from the receipt of SPAM email and other non-customer contacts were deemed invalid and omitted from the statistics. An annual survey of ITS customers was distributed in spring 2012. Respondents were asked to rate satisfaction with ITS regarding customer support service in 5 areas. Responses showed the following satisfaction rates: Initial Response: 97% Friendliness: 98% Professionalism: 99% Helpfulness: 98% Resolution of Issue: 97%

**Related Action Plans (by Established cycle, then alpha):**

**Add Resources to Improve Satisfaction with Timeliness**

*Established in Cycle:* 2011-2012

In order to meet the goal for customer satisfaction with timeliness of initial response and eventual resolution to service reque...

**Expand/Revise Survey Topics**

*Established in Cycle:* 2011-2012

Surveys on ITS Help will be revised to include additional questions such as those related to specific products supported by ITS ...

For full information, see the *Details of Action Plans* section of this report.

**M 5: Service Desk Resolution Time SLA Report**

Reports generated from Footprints showing number of issues meeting or breaching the Resolution Time SLA.

Source of Evidence: Efficiency

**Target:**

95% of survey respondents will indicate satisfaction with Service Desk resolution time.

**Finding (2011-2012) - Target: Partially Met**

3474 valid issues were submitted by customers to ITS Help 08/01/2011-07/31/2012. A satisfaction survey is automatically sent to the submitter via email when the issue status is set to closed. 637 survey responses were received, for a return rate of 18%. Responses indicated a 94% satisfaction rate with the timeliness of resolution to customer requests. Issues generated from the receipt of SPAM email and other non-customer contacts were deemed invalid and omitted from the statistics. An annual survey of ITS customers was distributed in spring 2012. Respondents were asked to rate satisfaction with ITS regarding customer support service in 5 areas. Responses showed the following satisfaction rates: Initial Response: 97% Friendliness: 98% Professionalism: 99% Helpfulness: 98% Resolution of Issue: 97%

**Related Action Plans (by Established cycle, then alpha):**

**Add Resources to Improve Satisfaction with Timeliness**

*Established in Cycle:* 2011-2012

In order to meet the goal for customer satisfaction with timeliness of initial response and eventual resolution to service reque...

**Expand/Revise Survey Topics**

*Established in Cycle:* 2011-2012

Surveys on ITS Help will be revised to include additional questions such as those related to specific products supported by ITS ...

For full information, see the *Details of Action Plans* section of this report.

**O/O 3: Provide Reliable and High Quality Applications and Systems for Customers**

Ensure that systems which serve the university as a whole, such as eLearning, wikis@tamu.edu, and blogs@tamu.edu, have minimal downtime.

**Strategic Plan Associations**

**Texas A&M University**

- 1 Elevate our faculty in their teaching, research and scholarship.
- 2 Strengthen our graduate programs.
- 3 Enhance the Undergraduate Academic Experience.

**Related Measures**

**M 2: Track system uptime.**

System logs will serve as sources for determining system availability and downtime.

Source of Evidence: Benchmarking

**Target:**

To provide the 97% uptime and access of the course management system (currently Bb VISTA) and supporting applications as provided by ITS.

**Finding (2011-2012) - Target: Met**

System uptime was 99.05% for the 2011-2012 cycle. Supporting documentation has been uploaded.

**Connected Document**

[System Uptime 2011-2012](#)

**Related Action Plans (by Established cycle, then alpha):**

**Develop a plan to track not only percent availability but also average response time.**

*Established in Cycle:* 2008-2009

Continue to track availability data for eLearning. Add availability tracking for other systems like wiki, self service module a...

**Improve efforts to obtain customer feedback**

*Established in Cycle:* 2008-2009

Due to the low number of completed surveys, methods for obtaining feedback will be expanded to include workshop participants, th...

For full information, see the *Details of Action Plans* section of this report.

**O/O 4: Provide Prompt Response to Customer Service Requests**

The Service Desk will promptly respond to requests for assistance.

**Strategic Plan Associations**

Texas A&M University

1 Elevate our faculty in their teaching, research and scholarship.

**Related Measures**

**M 3: Service Desk Response Time SLA Report**

SLA Reports generated from Numara Footprints showing the number of issues meeting or breaching service level agreements for response time.

Source of Evidence: Efficiency

**Target:**

95% of issues submitted will meet the Response Time Service Level Agreement.

**Finding (2011-2012) - Target: Met**

A total of 3474 valid issues were submitted to ITS Help from 08/01/2011 through 07/31/2012. The Response Time Service Level Agreement, to respond within 2 business hours, was met for 97.9% of the issues submitted. Issues generated from the receipt of SPAM email and other non-customer contacts were deemed invalid and omitted from the statistics. An annual survey of ITS customers was distributed in spring 2012. Respondents were asked to rate satisfaction with ITS regarding customer support service in 5 areas. Responses showed the following satisfaction rates: Initial Response: 97% Friendliness: 98% Professionalism: 99% Helpfulness: 98% Resolution of Issue: 97%

**O/O 5: Provide Timely Resolution to Service Requests**

ITS will provide a timely resolution to requests for assistance from customers.

**Strategic Plan Associations**

Texas A&M University

1 Elevate our faculty in their teaching, research and scholarship.

**Related Measures**

**M 5: Service Desk Resolution Time SLA Report**

Reports generated from Footprints showing number of issues meeting or breaching the Resolution Time SLA.

Source of Evidence: Efficiency

**Target:**

95% of issues submitted will meet the Resolution Time Service Level Agreement.

**Finding (2011-2012) - Target: Met**

A total of 3474 valid issues were submitted to ITS Help from 07/31/2011 through 08/01/2012. The Resolution Time Service Level Agreement, which varies by issue priority, was met for 99.2% of the issues submitted. Issues generated from the receipt of SPAM email and other non-customer contacts were deemed invalid and omitted from the statistics. An annual survey of ITS customers was distributed in spring 2012. Respondents were asked to rate satisfaction with ITS regarding customer support service in 5 areas. Responses showed the following satisfaction rates: Initial Response: 97% Friendliness: 98% Professionalism: 99% Helpfulness: 98% Resolution of Issue: 97%

**Related Action Plans (by Established cycle, then alpha):**

**Add Resources to Improve Satisfaction with Timeliness**

*Established in Cycle:* 2011-2012

In order to meet the goal for customer satisfaction with timeliness of initial response and eventual resolution to service request...

**Expand/Revise Survey Topics**

*Established in Cycle:* 2011-2012

Surveys on ITS Help will be revised to include additional questions such as those related to specific products supported by ITS ...

For full information, see the *Details of Action Plans* section of this report.

**O/O 6: Provide Timely Resolution to Application Related Service Requests**

ITS applications group will provide a timely resolution or workaround to requests from the service desk.

**Related Measures**

**M 8: ITS Help Applications Team Performance Report**

The applications team report showed an average of 7 days to resolve issues. Spreadsheet generated from ITS Help metrics and uploaded to show findings.

Source of Evidence: External report

**O/O 7: Provide System High Availability and Disaster Recovery Strategy**

ITS applications group will provide technology and hardware to support system high availability and disaster recovery.

**Related Measures**

**M 7: Annual Data Center Switchover Exercise**

The annual data center switchover exercise was performed during the time frame of August 15-16 to verify disaster recovery and business continuity procedures. The exercise was done successfully with no issues in regards to customer service or performance of the application.

Source of Evidence: External report

## Details of Action Plans for This Cycle (by Established cycle, then alpha)

### Develop a plan to track not only percent availability but also average response time.

Continue to track availability data for eLearning. Add availability tracking for other systems like wiki, self service module and web sites. Utilize Co-radiant data to establish reasonable average response time for eLearning and track average response time over time.

**Established in Cycle:** 2008-2009

**Implementation Status:** Finished

**Priority:** Medium

**Relationships (Measure | Outcome/Objective):**

**Measure:** Track system uptime. | **Outcome/Objective:** Provide Reliable and High Quality Applications and Systems for Customers

**Implementation Description:** Spring 2011. Plan to add tracking for other systems.

**Projected Completion Date:** 09/2011

**Responsible Person/Group:** ITS Systems administration and development group

### Improve efforts to obtain customer feedback

Due to the low number of completed surveys, methods for obtaining feedback will be expanded to include workshop participants, those submitting support tickets, and event participants. ITS has purchased a customer relations management application to assist in this effort.

**Established in Cycle:** 2008-2009

**Implementation Status:** Finished

**Priority:** Medium

**Relationships (Measure | Outcome/Objective):**

**Measure:** Track system uptime. | **Outcome/Objective:** Provide Reliable and High Quality Applications and Systems for Customers

**Implementation Description:** Spring Semester 2011. Plan to go live. ITS Help

**Projected Completion Date:** 03/2011

**Responsible Person/Group:** Faculty Support Team

### Offer professional development opportunities

Based on survey feedback, some individuals have difficulty attending workshops due to scheduling conflicts and/or location. To address this issue we would like to offer professional development opportunities that are not time and place bound.

**Established in Cycle:** 2009-2010

**Implementation Status:** Finished

**Priority:** Medium

**Implementation Description:** We will begin offering online workshops and webinars that do not require participants to travel to a specified location and can attend according to their own schedule.

**Projected Completion Date:** 05/2011

**Responsible Person/Group:** ITS support team.

### Successfully Deploy Surveys Using Service Desk Software

Resolve technical difficulties that prevented the deployment of the Numara Footprints survey feature.

**Established in Cycle:** 2010-2011

**Implementation Status:** Finished

**Priority:** High

**Implementation Description:** 1. Resolve technical issues with email integration and survey tool 2. Develop procedures for frequency of survey administration and results reporting 3. Select survey questions 4. Turn on survey tool

**Projected Completion Date:** 10/2011

**Responsible Person/Group:** Joshua Kissee, Ranil Gunesakara

### Add Resources to Improve Satisfaction with Timeliness

In order to meet the goal for customer satisfaction with timeliness of initial response and eventual resolution to service requests, ITS is adding an additional half-time FTE allocated to general IT consulting.

**Established in Cycle:** 2011-2012

**Implementation Status:** Finished

**Priority:** High

**Relationships (Measure | Outcome/Objective):**

**Measure:** ITS Help Customer Survey | **Outcome/Objective:** Provide Technical Support Which Meets Constituent Needs.

**Measure:** Service Desk Resolution Time SLA Report | **Outcome/Objective:** Provide Technical Support Which Meets Constituent Needs.

| Provide Timely Resolution to Service Requests

**Measure:** Service Desk Response Time SLA Report | **Outcome/Objective:** Provide Technical Support Which Meets Constituent Needs.

**Implementation Description:** IT Consultant position will be split between general consulting with ITS customers and consulting with recipients of the Enhancing Core Curriculum with Technology grant program supported with reallocation funds.

**Projected Completion Date:** 09/2012

**Responsible Person/Group:** Carol Henrichs

**Additional Resources:** Funding for salary and associated expenses

### Expand/Revise Survey Topics

Surveys on ITS Help will be revised to include additional questions such as those related to specific products supported by ITS in order to gauge satisfaction with support at a more granular level.

**Established in Cycle:** 2011-2012

**Implementation Status:** Planned

**Priority:** High

**Relationships (Measure | Outcome/Objective):**

**Measure:** Constituent Survey | **Outcome/Objective:** Provide High Quality Training.  
| Provide Technical Support Which Meets Constituent Needs.

**Measure:** ITS Help Customer Survey | **Outcome/Objective:** Provide Technical Support Which Meets Constituent Needs.

**Measure:** Service Desk Resolution Time SLA Report | **Outcome/Objective:** Provide Technical Support Which Meets Constituent Needs.  
| Provide Timely Resolution to Service Requests

**Measure:** Service Desk Response Time SLA Report | **Outcome/Objective:** Provide Technical Support Which Meets Constituent Needs.

**Measure:** Workshop Participant Survey | **Outcome/Objective:** Provide High Quality Training.

**Implementation Description:** ITS support team will develop new questions for ITS Help survey.

**Projected Completion Date:** 10/2012

**Responsible Person/Group:** Carol Henrichs

**Raise Target for Customer Satisfaction**

The target of 93% will be increased for the upcoming year.

**Established in Cycle:** 2011-2012

**Implementation Status:** Finished

**Priority:** High

**Relationships (Measure | Outcome/Objective):**

**Measure:** Constituent Survey | **Outcome/Objective:** Provide Technical Support Which Meets Constituent Needs.

**Projected Completion Date:** 11/2012

**Responsible Person/Group:** Carol Henrichs

## Analysis Questions and Analysis Answers

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**What changes are you planning to make based on what you learned last year from your findings? What findings did you use to determine this?**

Based on the results of an annual customer survey, which indicate a high level satisfaction with the timeliness of ITS services, and an unacceptable level of satisfaction with workshops, ITS will raise the target for timeliness and revise the annual survey to add questions that allow for gathering more granular information to determine what specific areas need improvement. Based on the results to the satisfaction survey automatically sent to those who submit a service request, and in anticipation of increased demand for user support during the upcoming LMS transition, ITS is adding additional resources in the form of a .5 FTE position to provide service desk support.

## Detailed Assessment Report

### 2011-2012 Telecommunications

*As of: 12/11/2013 04:12 PM EST*

*(Includes those Action Plans with Budget Amounts marked One-Time, Recurring, No Request.)*

## Mission / Purpose

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Provide customer-focused, fast, reliable, and cost-effective telecommunications services to the students, faculty, researchers, and staff of Texas A&M University and The Texas A&M University System. Additionally, Telecommunications will help Texas A&M in becoming a leader both nationally and globally in the development, implementation and innovation of telecommunications technology.

## Other Outcomes/Objectives, with Any Associations and Related Measures, Targets, Findings, and Action Plans

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**O/O 1: Customer Satisfaction**

Achieve a rating of "satisfied" or above on at least 80% of the customer satisfaction survey responses received.

**Related Measures**

**M 1: Measuring customer satisfaction**

Customer satisfaction will be evaluated and measured through the use of a software suite that includes feedback loops for immediate action.

Source of Evidence: Service Quality

**Target:**

Target is 80%

**Finding (2011-2012) - Target: Partially Met**

Although the achievement target was met from a technical standpoint for telephony orders, the amount of completed and returned customer satisfaction surveys for cellular orders and "other" orders was not statistically significant. We will continue to track and seek improvement on survey satisfaction, however we will now add an additional target of improving the quantity of received surveys by at least 25% in the first year. We plan to implement a new software suite which include additional methods of reply, simpler reply handling, answer "out of range" notification, and customer notification of follow-ups. We will also be utilizing the Telecommunications Advisor Board to help us refine the questions asked and to find ways to improve response rate. Results will continue to be tabulated and available at:  
[http://telecom.tamu.edu/Reports/Service\\_Surveys/index.php](http://telecom.tamu.edu/Reports/Service_Surveys/index.php)

**O/O 2: Cost Effective Telecommunication Services**

We will compare our services costs to institutions of comparable size and stature with the goal to be in the lower 25% .

#### Related Measures

##### **M 2: Benchmarking - Cost Effective Telecommunications Services**

We will compare our services costs to institutions of comparable size and stature with the goal to be in the lower 25%. A Questionnaire concerning the cost of VoIP, Centrex, and PBX services will be circulated to 15 Tier 1 institutions. Our cost will then be compared to the responding institutions to gauge where we stand in our offerings. We will however, take into consideration the location of the institution and the organizational make up of the institution during the comparison.

Source of Evidence: Benchmarking

##### **Target:**

Be able to make the comparison between our University and the other Tier 1 Universities. To be in the lower 25% comparing costs to other institutions of comparable size and stature.

##### **Finding (2011-2012) - Target: Met**

Due to lack of responsiveness to the survey by many university institutions we reached out to ACUTA for assistance. An ACUTA university member has contracted WTC consultants to perform a benchmark survey for ACUTA members. We participated in the survey to meet the achievement target. In the future we will also utilize a more comprehensive rate setting methodology in conjunction with the department's recent re-classification as a "service center" within the University.

##### **O/O 3: Availability of Key Services**

Key services (Verizon Central Office, VoIP server, Matrix card access, voice mail, PBX, long distance trunks) will be available 99.9% during the calendar year.

#### Related Measures

##### **M 3: Availability of Key Services**

Key Services (Verizon Central Office, VoIP server, Matrix card access, voice mail, PBX, long distance trunks) will be available 99.9% during the calendar year. Telecommunications has implemented these monitoring guidelines and will be continued indefinitely. The intent is to ensure the availability of key services. Measurement Critical – catastrophic failure of entire system Major – A significant subsystem is not available but the majority of users are only slightly impacted Minor – An outage impacting 50 to 200 users Central Office – The TAMU Central Office is a Lucent 5ESS installed in 1997 and maintained by Verizon. It currently supports about 17,000 lines Critical – Complete loss of Central Office Major – A remote module being shut down or disconnected from the network that supports a significant portion of campus Minor – a cable cut involving one or two buildings TAMU VoIP system – The TAMU VoIP system is an Aastra Clearspan system installed in 2009. Currently there are about 4,000 users. We plan is to grow the system by about 1,400 users per year. This platform is a distributed architecture with major nodes geographically located in two hardened buildings on campus Critical – Loss of both switching nodes or loss of loss of one node with failover provisions not functioning properly. Major – Loss of one of the two nodes with failover operating properly for the majority of the users Minor – Loss of one or two buildings. Matrix Keyless Entry System - This is the back office system for the keyless entry systems on campus. At this time we have a little over 2,000 doors on campus but it is one of our fastest growing services. It is a distributed system with the individual door units able to operate in a standalone manner in the event of a network failure. Critical - None of the card access door systems on campus are able to function. Major - Loss of functionality of 30 or more doors Minor - Loss of functionality of one building. Campus Voice Mail System - The TAMU Voice Mail system is a Broadsoft VoIP server that supports Voice mail for the campus Centrex and VoIP customers. It currently supports about 8,000 users. Critical - Loss of Voice Mail System Major - Voice Mail receives new voice mail but cannot be accessed for retrieval or message waiting link is not functioning. This can also be a complete loss of either the Centrex or the VoIP connections but not both. Minor – features such as unified messaging not functioning for the entire system 800 MHz Radio System - This is the main campus radio system that currently supports all law enforcement and operational units on campus. It is an 800 MHz Motorola Digital Trunked radio system with approximately 1500 subscribers on it. Critical - System non functional to any radios Major - System operating in a fail-soft mode Minor – System operating with less than half of repeaters operating 700 MHz P25 Radio System - This will be the main law enforcement radio system with its commissioning in January of 2010. It is a 700 MHz Motorola P25 Digital Trunked radio system and will have approximately 400 subscribers on it. It was funded through a \$2.8 million FEMA grant to provide radio interoperability with the City of Bryan, the City of College Station, the City of Brenham, Brazos County, Washington County and the greater Houston area. Critical - System non functional to any radios, including network backup from other repeaters on the network Major - System operating in a fail-soft mode, operating on other network repeaters or loss of all TAMU consoles. Minor – System operating with less than half of repeaters operating or loss of one TAMU console.

Source of Evidence: Service Quality

##### **Target:**

Key telecommunication services, (Centrex, VoIP, keyless access, voice mail, PBX, and long distance trunks) will be available at least 99.9% during the calendar year.

##### **Finding (2011-2012) - Target: Met**

Implementation for major systems have been completed. All systems are being monitored for critical and major events. We have met the target uptime on these services. We are in process of implementing monitoring for minor events as well. Uptime measurement of Broadsoft has commenced. All major Broadsoft VoIP components are being tracked including Application Servers, Network Servers, Media Servers, Unified Messaging Servers, Provisioning Servers, and Telephony Gateways. Call volumes across the Telephony Gateways are also being measured. In the coming year we look to include measurement of up time on the PoE switches, DC backup power plants as well as individual call quality. We will also be incorporating uptime measurements for the keyless access system. The implementation of the additional devices was not met due to staffing and resource allocation challenges. A different product is being implemented to provide better flexibility in achieving the metrics across the diverse set of platforms implemented by Telecommunications.

##### **O/O 4: Modernization of installed services**

As technology evolves replacement cycles of old, non-supported, and legacy solutions is essential to cost effective services. We will be making a transition from legacy equipment and services to state of the art technologies that can more efficiently meet customer's needs.

#### Related Measures

**M 4: Comparing status and rate of transition from Centrex telephone service to VoIP.**

Using data gathered from our telemanagement system we will publish historical and current quantities of Centrex numbers versus VoIP numbers. Source of evidence: Activity Volume

Source of Evidence: Activity volume

**Target:**

Our goal is to transition from the 90% of the total lines being Centrex down to 10% in 8 years' time.

**Finding (2011-2012) - Target: Partially Met**

We are publishing monthly reports on the quantities of Centrex versus VoIP numbers. The reports can be found at: [http://telecom.tamu.edu/Reports/Phone\\_Line\\_Metrics.php](http://telecom.tamu.edu/Reports/Phone_Line_Metrics.php) The transition to VoIP started in May 2009. At that time we had 20,000 Centrex and Connally PBX lines. In each of the subsequent years we have converted an average of 1,000 lines from Centrex and Connally PBX to VoIP. In the last year alone we have converted 1,400 lines to VoIP. At that continued pace we will have 70% of the campus converted to VoIP in 8 years. In addition to the telecom metrics we are also branching out and assisting other campuses and remote offices with their conversions from regular telephone services to VoIP. These other campuses may not be reflected in this metric.

**Details of Action Plans for This Cycle (by Established cycle, then alpha)**

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**Plan of Action 2010-2011**

Plan of Action With the three existing objectives there is continuing work to improve and expand on the work already started. The first area of measurement is the customer satisfaction surveys. We have previously grouped our services into three types: Telephone, Cellular, and Other Services. We are tracking responses for customer satisfaction improvement. While we will continue to seek improvement in all areas. We will be evaluating the survey questions this year to determine of changes are needed to better reflect customer opinion. The second area of measurement was the completion of a Benchmark Study. While we attempted to complete the study, we did not receive enough responses to make the study valid. We reached out to ACUTA for assistance: An ACUTA university member has contracted WTC consultants to perform a benchmark survey for ACUTA members. We will participate in the survey and use the results of that survey to meet the achievement target. This year (2011) in the third area of measurement will be implementing monitoring of more event metrics in the University telecommunications system. We look to expand measurement of up time on the PoE (power over Ethernet) switches, DC backup power plants, and individual call quality. We will also be incorporating uptime measurements for the keyless access system. This year we have added an additional area of measurement. This area is reporting the ratio of legacy technologies deployed to new updated technologies offered. We are collecting and publishing the raw numbers on the conversion from Centrex to VoIP on the Telecom Web site ([http://telecom.tamu.edu/Reports/Phone\\_Line\\_Metrics.php](http://telecom.tamu.edu/Reports/Phone_Line_Metrics.php)).

**Established in Cycle:** 2010-2011

**Implementation Status:** Planned

**Priority:** High