Mission / Purpose

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

O/O 1: Data Center Objective
The Teague Data Center had no scheduled downtime for the reporting period. The Wehner Data Center was taken out of service for two (2) hours on Saturday, January 19, 2013 for the installation of a new, larger capacity generator.

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 problem tracking system (Keystone). Annual downtime is calculated from the Keystone problem tracking system. Annual downtime is calculated from Keystone entries for the period September 1, 2012 through August 31, 2013.

Source of Evidence: Professional standards

Connected Document
Assessment TIA 942

Target:
Data Center downtime not to exceed 22 hours annually.

Finding (2012-2013) - Target: Met
The Teague Data Center had no scheduled downtime for the reporting period. The Wehner Data Center was taken out of service for two (2) hours on Saturday, January 19, 2013 for the installation of a new, larger capacity generator.

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

O/O 2: 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 2: 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 Networking and Information Security (NIS) server. Availability will be reported based on actual data for the period of September 1, 2012 through August 31, 2013.

Source of Evidence: Existing data

Target:
99.999% uptime which is 5.25 minutes downtime.

Finding (2012-2013) - Target: Partially Met
Availability for FY2013 was 99.992%. Deployment of redundant hardware was not fully in place. Network routing protocol re-convergence takes more time than anticipated. We are reconfiguring the backbone to show less impact from external loss of connectivity.

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

Internet Availability
Established in Cycle: 2012-2013
A plan to provide outdoor wireless for several areas has been created. Several groups will review/consider the plan in FY2014, ...

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

O/O 3: 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 objective 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 11: 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. Down time 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 Keystone will also be collected. This data will be used to plan enhancements and improvements to the service. Solar/Windows 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:**
Maintain sufficient capacity to service customer demand. Targets have been set for the availability of hypervisor resources and storage resources. A target of 70% utilization of Random Assess Memory (RAM: memory utilization used as a representative benchmark) has been set to trigger the planning and procurement processes to add additional computer capacity. Similarly, a target of 85% of peak Input/Output Operations Per Second (IOPS: the speed at which data is being transferred either to/from the system) or 70% utilization will trigger processes to add storage capacity.

**Finding (2012-2013) - Target: Met**
Current RAM utilization for the hypervisor infrastructure is at 72%. Storage IOPS are currently being measured at 90% of peak capability. Additional server and storage resources will be requested, as a result of reaching this threshold.

**O/O 4: Open Access Lab Objectives**

The objective of the Open Access Lab (OAL) is to provide desktop services supporting academic instruction in classrooms, labs, and remotely to the students and faculty of Texas A&M University. The 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 service objectives were set by monitoring the login and restart times of machines during a semester after an optimization period with Microsoft. 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 3: Login and Reboot Times**

OAL login and reboot times are important for faculty teaching in classrooms with technology. Often a reboot is required if the previous faculty member locked the computer screen and did not log off. Faculty complaints regarding the time required to reboot the systems and the amount of time required to reboot triggered an investigation into the cause of the reboots lasting almost 10 minutes in some cases. We brought in a Microsoft analyst to help us determine ways to improve the times. With the new tools provided by Microsoft and a better understanding of the issues, we have been able to lower the login and restart 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 for the period between August 1, 2013 through July 31, 2014. 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 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 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 OAL login and reboot times will be performed by CIS’s Open Access Lab and 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 (2012-2013) - Target: Met**
For the period of August 1, 2012 through July 31, 2013, the average login time was 33 seconds and the average restart time was 2.53 minutes.

**O/O 5: Integrated Emergency Notification (IEN) System Objective**
The IEN project includes the purchase, implementation, operational support, and IT 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 (short message service text, email, classroom speakers, desktop popups, emergency alert system, really simple syndication, and Twitter). This latest version of the Code Maroon system replaced the previous system powered by EzCampus in September 2009. The IEN project team recently completed a collaborative effort with AtHoc to perform a major upgrade of the software and infrastructure to enable the University to take advantage of enhanced performance and reliability features. The dedicated hardware has been replaced with virtualized servers and manual failover processes have been replaced by load balancing between the application servers. The manual database failover has been replaced by a clustered database architecture. In testing the upgraded system, the alert team identified some issues in the vendor code. The team, with vendor approval, has instituted custom code to address the shortcomings until a long-term patch is available from the vendor. Additional intended outcomes of the upgrade included 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 4: Short Message Service (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 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 up to 7 minutes.

**Finding (2012-2013) - Target: Partially Met**
- For the alerts published between January 25, 2013 through June 28, 2013, out of 18 uses of this channel, 1 did not meet the performance measure. Mediation: The CIS team and stakeholders will continue to monitor the SMS Text channel's delivery times on subsequent alerts. If a pattern of higher values is observed, AtHoc, Inc. will be contacted for assistance investigating and resolving the issue.

### M 5: 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 are a faster notification method than email, so campus members are encouraged to register for text message alerts. Some consideration is being given to outsourcing the email, which may impact the ability to use that channel in the future.**

**Source of Evidence:** Existing data

**Target:**
- The time allowed from when the alert was published until the email message is delivered to all TAMU Email mailboxes, is up to 30 minutes.

**Finding (2012-2013) - Target: Met**
- For the alerts published between January 25, 2013 through June 28, 2013, out of 15 uses of this channel, all met the performance measure.

### M 6: Emergency Notification Message Broadcast

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

**Source of Evidence:** Existing data

**Target:**
- The 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 up to 2 minutes.

**Finding (2012-2013) - Target: Met**
- For the alerts published between January 25, 2013 through June 28, 2013, out of 17 uses of this channel, all met the performance measure.

### M 7: 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 time from when the alert was published until the message is delivered to the TAMU Twitter account, is up to 1 minute. Delivery time from the account to each “follower” is dependent upon how quickly Twitter can deliver the message, and is not controlled by the University.

**Finding (2012-2013) - Target: Partially Met**
- For the alerts published between January 25, 2013 through June 28, 2013, out of 18 uses of this channel, 1 did not meet the performance measure. The failure was due to a date stamp error in the vendor code. Short-term mediation: The Twitter service was modified to notify the alert team for every Twitter message. Long-term mediation: The team worked with the vendor to fix the issue. The fix has been applied.

### M 8: Really Simple Syndication (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 time allowed from when the alert was published until the message is available as an RSS feed, is up to 1 minute.

**Finding (2012-2013) - Target: Met**
- For the alerts published between January 25, 2013 through June 28, 2013, out of 18 uses of this channel, all
met the performance measure.

**M 9: 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 time allowed from when the alert was published until the message is displayed on a desktop computer that is running the client application, is up to 3 minutes.

**Finding (2012-2013) - Target: Met**

For the alerts published between January 25, 2013 through June 28, 2013, out of 18 uses of this channel, all met the performance measure.

**M 10: Classroom Speakers**

Code Maroon emergency alerts are automatically broadcast over loud speakers in registrar-controlled classrooms (for a listing of classrooms, see http://registrar.tamu.edu/FacultyStaff/CrmLiPer.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 time allowed from when the alert was published until the message is delivered to the online classroom speakers, is up to 2 minutes.

**Finding (2012-2013) - Target: Partially Met**

For the alerts published between January 25, 2013 through June 28, 2013, out of 18 uses of this channel, 1 did not meet the performance measure. The failure was due to a Benbria software error. Long-term mediation: The software has been upgraded.

**O/O 6: 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 12: Wireless**
The campus office space is approximately 12 million square feet and is at 69% 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 (2012-2013) - Target: Met**

Wireless office coverage increased by 10.09%. The plan to provide outdoor coverage will be considered by the Council on Built Environment in FY 2014.

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

### Campus Network Resiliency

Uptime measurements for the data center (Teague was 99.97%, Wehner was 100%), message services (99.96%) 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

### Internet Availability

A plan to provide outdoor wireless for several areas has been created. Several groups will review/consider the plan in FY2014, including the Council on Built Environment.

**Established in Cycle:** 2012-2013
**Implementation Status:** Planned
**Priority:** High

Relationships (Measure | Outcome/Objective):
- **Measure:** Internet Availability | **Outcome/Objective:** Internet Access

**Responsible Person/Group:** Networking and Information Security

**Analysis Questions and Analysis Answers**
Based on the analysis of your findings, what changes are you currently making to improve your program? Identify the specific findings you analyzed and how they led to your decision.

Virtualization Services - RAM utilization and Storage (IOPS) measures indicate additional capacity is necessary to service future customer demands. The improvement plan: no tools currently exist to provide periodic reports for resource usage. Determining current utilization is a manual process with results open to individual interpretation. Methodology needs to be developed that report results consistently and in accordance with a prescribed timeline. The availability of existing tools and capability has a feasibility for in-house development, if no tools exist in the marketplace, or a document methodology for gathering the required information necessary to meet the service objectives. IEN - One SMS alert instance failed to meet stated service objectives. One Twitter alert instance failed to meet stated service objectives (resolved). One Classroom Speakers alert instance failed to meet service objectives (resolved). The improvement plans: The current testing program for each of the alert channels for Code Maroon is robust, well-documented, and thorough. This program could be improved by establishing quantifiable thresholds that would trigger vendor engagement to resolve issues. The team will establish thresholds for the number of individual alert failures for each channel when, on reaching the stated threshold, the investigative process and/or supplier/vendor engagement is required for assistance in resolving the issue.

Provide an update for completed or ongoing action plans from the previous year(s). Highlight your improvements.

Data Center Service reliability was improved through the completion of the installation of a larger capacity backup generator for the secondary facility. Backup power services are now available for all tenants of the Data Centers, ensuring their services remain available during primary power outages. Campus Network Resiliency: As part of the initiative to improve these services, a program was initiated to assess the facilities infrastructure for the key network hubs. Funding for Phase 1 has been secured and, following an initial site survey, a project plan is in the process of being developed. Message Services: All server resources in support of message services have been moved to a highly available virtual service platform that spans multiple data centers. Storage and network resources were added at the secondary site. The project to improve the redundancy and reliability of this service has been completed. Networking (Wireless): A plan to provide outdoor coverage has been develop and will be considered by the Council on Built Environment.

Detailed Assessment Report
2012-2013 Educational Broadcast Services
As of: 12/11/2013 04:09 PM EST
(Includes those Action Plans with Budget Amounts marked One-Time, Recurring, No Request)

 Mission / Purpose

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

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 monthly.

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 Backbone 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 (2012-2013) - Target: Met
Target was met. Uptime was 100% for the FY 2013 year. RZ Note This report was completed 9 days before the August 31 uptime reporting period due to WEAVE closing 1 month earlier this year. If downtime occurs during those days it will be reflected in the FY14 WEAVE report.

Connected Document
Reliability FY 13

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. MRTG has been the tool of choice but is very labor intensive. We are looking for a less burdensome way to collect the data.

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 (2012-2013) - Target: Met
Reliability statistics were reported to the council each month during the fiscal year. RZ Note - screenshots through August were uploaded due to WEAVE closing August 31 which is 4 days prior to the September 2014 report.

Connected Document
EBS Council Reports FY 13

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: 65 percent of the campuses at 1 gig
Continue BTOP project to bring on at least 65% 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: BTOP 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
Thus, the updated measure will be a document of the Director of Telecommunications at TAMU, or the Principle Investigator (Rodney Zent) of the project, listing those campuses where the fiber installation is complete. This document will be uploaded to WEAVE each September until project is complete.

Source of Evidence: Document Analysis

Connected Document
BTOP Progress FY 13

Target:
Connect 65% of campuses during FY13

Finding (2012-2013) - Target: Met

RZ Listing of BTOP Status as of August 22, 2013: Below is a list of campuses. Those marked with a * indicate fiber has been constructed to the campus in FY 12. Those marked with ** indicate connections in FY 2013.

PVAMU ** TAMHSC * TAMU TAMU Riverside * TAMUC ** TAMUCC TAMUCT * TAMUG * TAMUK TAMUSA *
TAMUT TSU ** W TAMU Campus = 13 Connected= 8 % connected = 62 % GOAL Not Met

Connected Document
BTOP Progress FY 13

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.

Implemented in Cycle: 2008-2009
Implementation Status: In-Progress
Priority: High

Relationships (Measure | Outcome/Objective):
Measure: Backbone Reliability Reports | Outcome/Objective: Network Backbone 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: 08/2015
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: BTOP Progress Report | Outcome/Objective: 65 percent 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: 08/2014
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 intrepretation 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. FY 2013 saw improved communications. No work was done outside the maintenance window to disrupt the network. Failures were automatically resolved due to the network architecture and resulted in a 100% uptime. The communications process is working and we will continue in this manner in the future.

Established in Cycle: 2011-2012
Implementation Status: In-Progress
Priority: High

Relationships (Measure | Outcome/Objective):
Measure: Backbone Reliability Reports | Outcome/Objective: Network Backbone Architecture with 99.999% uptime

Projected Completion Date: 08/2015

BTOP Final Connectivity
There are a number of issues with BTOP fiber to locations that are still in limbo regarding final connectivity. These issues range from final permits, final legal documents, construction of fiber from other BTOP or University partners that
is not completed, and the like. TTVN will work with these issues over the FY14 year to insure final connectivity of all circuits.

Established in Cycle: 2012-2013  
Implementation Status: In-Progress  
Priority: High  
Projected Completion Date: 08/2014  

Analysis Questions and Analysis Answers

Based on the analysis of your findings, what changes are you currently making to improve your program? Identify the specific findings you analyzed and how they led to your decision.

We believe the reliability of 99.999% continues to be a critical factor of success to our program. All campuses and nearly all faculty and staff rely more and more on network connectivity to function. As more devices are brought to campus (iPhone, iPad, laptop, etc.) both the capacity of the network as well as the reliability become increasingly important to success. Our findings this year show the reliability of the backbone rose to 100% uptime due to the upgraded communication patterns developed during the past year. It was clear that after the findings in FY 12, the down time was not due to network architecture or equipment failure, but simply not adequate communications between LEARN staff and TTVN. Results from FY 13 show uptime has been 100% not only for the entire year, but in fact, has been at 100% since February if 2012. We believe there is now a clear path of communications and that further issues to do human interaction will not cause downtime. The reporting of utilization statistics to the council has become routine. We are finding, however, that it is a fairly time consuming task to collect and report the data. Staff is working on a more automated way to handle this. We hope to implement this in September 2013. BTOP has been challenging because of the short time frame to implement, the wide geography of the project, and the large number of partners. We have received an extension to the project (original end date was July 31) to September 30, 2012. This should give us time to do the remaining work. Once the project ends, there are still a number of issues for staff to work out for the final 4 campuses. This will be a priority in 2014.

Annual Report Section Responses

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 students, faculty, and staff depend on a variety of devices (iPhone, iPad, laptops, etc.) to function effectively in a higher education environment.

Detailed Assessment Report  
2012-2013 Enterprise Information Services  
As of: 12/11/2013 04:09 PM EST  
(Includes those Action Plans with Budget Amounts marked One-Time, Recurring, No Request.)

Mission / Purpose

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 (now Ellucian). To improve reporting capabilities, the EIS project team is also responsible for maintaining the Ellucian Operational Data Store (ODS). Additionally, the project team maintains a web portal, called Howdy, 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

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**

**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 Advisor User Group meetings July 1- June 30: XXX and number of attendees: XXX Total number of newsletters sent July 1- June 30: XXX Total number of Primary Authorizing Agent (PAA) meetings July 1- June 30: XXX and attendees: XXX 2. Total number of Compass Work Requests received to date (July 1- June 30): XXX Total number of work requests completed or no longer pending (July 1- June 30): XXX

Source of Evidence: Activity volume

**Target:**

1. EIS will evaluate staffing and organize EIS to most efficiently meet the needs of the campus community. 2. EIS will conduct Compass Advisory User Group meetings, Primary Authorizing Agent (PAA) meetings and send out electronic newsletters to Compass users to exchange information with the university community. 3. EIS will complete 75% of Compass Work Requests received to meet the needs of the campus community making Compass and Howdy easier to use. Requests are evaluated by functional and technical teams to assess viability then reviewed by the EIS Steering Committee Meeting for approval.

**Finding (2012-2013) - Target: Met**

1. We have re-organized the EIS reporting structure to most efficiently meet the needs of the campus community. 2. Total number of Compass Advisor User Group meetings July 1- June 30: 4 and total number of attendees: 67 in last three meetings - first meeting attendance not recorded. Total number of newsletters sent July 1- June 30: 8, plus electronic maintenance notices as necessary. Total number of Primary Authorizing Agent (PAA) meetings July 1- June 30: 2 and total number of attendees: 70 3. Between July 1, 2012 and June 28, 2013, EIS completed 89% of requests for data feeds, reports and improvements to functionality received. Of 563 requests received, 502 have been completed or are no longer pending. These requests result in changes to Compass and Howdy that provide additional functionality, access to student data and convenience for students, advisors, faculty, staff and parents.

**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. (2) Open Lab sessions for past course attendees will be offered to provide assistance on creating reports.

**Finding (2012-2013) - Target: Met**

1. EIS maintains the Operational Data Store (ODS) database to provide data for departments and EIS staff using the ARGOS reporting tool to write reports to assess their programs. 2. Total number of Argos Reporting Training sessions offered August 2012 - June 2013: 9 sessions (2 Fall, 7 Spring). 3. Total number of Argos Reporting Training attendees: 94 attendees (36 Fall 58 Spring). 4. Total number of Open Lab sessions for prior Argos Reporting Training attendees to obtain assistance in writing reports for their departmental needs: 12 sessions In addition, this year EIS expanded the training to include four levels of training: Beginner (all day class); Advanced Beginner (all day class); Refresher (half day class); and Advanced (half day class). This allows users to advance their skills according to their talents, interests and needs and enable them to produce more complex reports.

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

Additional training and open lab sessions offered

*Established in Cycle: 2012-2013*

EIS will offer 14 additional Argos Report Training sessions between July 2013 and June 2014. (7 Fall, 7
Details of Action Plans for This Cycle (by Established cycle, then alpha)

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

Additional training and open lab sessions offered
EIS will offer 14 additional Argos Report Training sessions between July 2013 and June 2014. (7 Fall, 7 Spring) In addition, twelve open lab sessions will be held during this period providing technical assistance to previous attendees in creating reports to meet their departmental reporting and evaluation needs.

Established in Cycle: 2012-2013
Implementation Status: Planned
Priority: High

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

Implementation Description: EIS will offer four levels of Argos Report training: Beginner; Advanced Beginner; Refresher and Advanced in 14 sessions and twelve open lab sessions to assist attendees with report writing.
Based on the analysis of your findings, what changes are you currently making to improve your program? Identify the specific findings you analyzed and how they led to your decision.

In order to improve Compass access for the university community, we are: 1. Meeting with the colleges to provide demonstrations of the Degree Planner tool and obtain feedback. We have already met with the colleges of Agriculture, Education, Liberal Arts and Business. 2. We are conducting a weekly Degree Planner Meeting with representatives from across campus. 3. We have also updated and obtained feedback from the Compass Advisory Group. 4. The Undergraduate Degree Planner tool was released to returning students in late Summer 2013 and will be released to new students in Fall 2013. EIS will continue to seek feedback from the university community and develop enhancements based on feedback. Based on student and advisor feedback, we will be providing a degree plan approval process in Fall 2013. The EIS-developed tool will allow advisors to approve degree plans while logged into the Howdy Portal instead of using multiple log-ins as they would need to using CAPP.

Provide an update for completed or ongoing action plans from the previous year(s). Highlight your improvements.

I. EIS has continued to make enhancements and improvements to the Undergraduate Degree Planner which became available to students in Summer 2013. Among improvements made this year are: 1. Add courses from templates - Making it easier for the students to add courses to the planner in bulk based on a pre-set template of courses offered. 2. Pre-Requisite checking - Allowing the system to check for pre-requisite courses for any course a student added to the planner. 3. Planner progress - The Planner shows a progress bar that illustrates the level of completion for each section of the degree requirements. 4. PDF of Planned Courses - A printable format of the Planned courses is available. 5. Course History - A check to show the student if a selected course has been historically offered in the past two years for the term selected. 6. Non-course degree requirements - Allow addition of Internship and study abroad from the individual course add screen. II. Due to the number of Argos users who have been trained and are using ARGOS to create reports for their departments, EIS made the following enhancements this year: 1. Using the Data Dictionary feature within the Evisions Argos application, EIS was able to leverage this feature to pre-build joins between the most commonly used Operational Data Store (ODS) tables. By pre-building the joins, new users of Argos, with little or no technical background, have decreased their learning curve with the application because: a. The data dictionary allows us to create an almost drag and drop reporting system. b. Eliminates the need for the users to have SQL (Structured Query Language) experience. c. Allows us to efficiently create the joins for the database tables to allow for more effective end user reporting. 2. Using the Library of Objects feature within the Evisions Argos application, EIS was able to leverage this feature to pre-build drop down parameters needed for most reports. By creating and adding objects to the Library of Objects, new users are able to: a. Add dynamic drop-down boxes for Academic Period that will adjust with time to eliminate the need for updates. b. Add dynamic drop-down boxes for College and Major that will update with changes made in Compass as Texas A&M added or modifies majors and colleges c. Add University Branding logos and images to keep in line with the Texas A&M Branding initiative. 3. The latest version of Argos is CAS enabled. By implementing this feature, access to Argos has been made easier to our users and reduced their need to keep a separate login and password. Access to their Argos account is by netid which is in line with all campus single sign on (SSO) applications.

Detailed Assessment Report
2012-2013 Instructional & Media Services
As of: 12/11/2013 04:09 PM EST
(Includes those Action Plans with Budget Amounts marked One-Time, Recurring, No Request)

Mission / Purpose

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, based on the most common multimedia equipment needs, 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

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 Open Access Labs (OAL) within Computing and Information Services (CIS). 3. Ensure the least amount of downtime 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

O/O 1: Provide Quality Service

IMS seeks to maintain and upgrade equipment in the classrooms under their control. A minimum of 12 classrooms are selected annually for new upgrades. This minimizes time lost to aging equipment or parts. Ultimately, IMS also seeks to provide such quality service in order to gain more than the current 154 classrooms. We strive to gain more of the (265) Registrar controlled classrooms. IMS has implemented three additional mechanisms that will give a more accurate rate of downtime and eliminate some of the lost class time. The implementation has been done; this is in addition to the annual survey that is submitted. First, IMS has implemented starting in the fall 2012, a new programming system from AMX. This software is called Resource Management Suite or RMS. It allows us to “measure” lamp hours, source usage, and DVI (central controller) connection. We will use the latter report which is called “Location Quality of Service” (QOS) to prove...
the reliability and functionality of the equipment in the IMS classrooms. The QOS report measures the Network/Power uptime and downtime of the DVX in each of our classrooms. Since this device routes and controls all of the Instructor used sources (PC, Laptop, Doc Cam, DVD Player), it is the best measure of the general usability of any given room. If this device is offline (downtime), none of the other features of the room can be accessed without an IMS technician intervention. Uptimes mean that the equipment in the classrooms is running properly. IMS will rely heavily on the data from this report as to the stability of the equipment in the IMS classrooms. Second, we have started tracking Keystones, or trouble tickets. We have begun monitoring the openings and the closings. Repairs are made in a timely matter; we will need to work on closing the Keystones immediately after repairs and testing are done. Third, IMS is working very closely with Lan Systems Support (LSS) during the re-imaging process of our computers. LSS is the entity within CIS that controls the software on all of the computers in the IMS classrooms. Our Microcomputer/LAN Administrator is now attending the weekly meetings held by LSS. Lastly, IMS continues to Query instructors of record in IMS supported classrooms for the spring 2013 term as to the actual usage and software in the classrooms under IMS control. These results are subjective and subject to the environment at the time of the survey. The questionnaire allows us to collect faculty opinions that are useful for changing processes and planning. Data is now used from the survey on which pieces of equipment to discontinue.

Related Measures

M 1: Equipment Usage

IMS will use the information gathered from the RMS reports, Keystone reports and the annual surveys in order to prove the heaviest and least usage of certain types of equipment in the IMS classrooms. The types of equipment are: Computers, VHS/DVD players, Blu-ray players, Document Cameras, iClickers, and Smart Sympodiums.

Source of Evidence: Existing data

Target:
The target is to gather evidence of the pieces of equipment that is utilized 70% or above in usage. These items will continue to be installed in the IMS classrooms. Verify the pieces of equipment, 15% or less, that will need to be discontinued from future IMS installations.

Finding (2012-2013) - Target: Met
RMS – According to the RMS Source Usage History report, this measures the actual usage per device (VHS/DVD/Blu-ray, Document Camera, Laptop and Computers). The highest usage is the computers and laptops brought into the classrooms. Few classrooms have Blu-ray and the VHS/DVD usage is declining. Also the document cameras have low usage. Keystones – Over 200+ trouble tickets were created by IMS staff and others during the spring 2013 semester. The equipment is being used in the classrooms. Survey - The computer and data projector usage remains the same at 98%. The video equipment usage is showing a steady decline. Based on previous surveys, IMS had discontinued installing VHS/DVD players within the new upgrades. The DVD player usage is down to 13%. Ninety percent said that they will use the computer drive to play a DVD. The Smart Sympodium had a usage rate of 34%; this percentage dropped from last year. This is still a vital part of the IMS equipment due to the fact that it serves as a monitor. iClickers had a usage rate of 14%; 72% percent displayed an interest in attending the training offered by Instructional Technology Services (ITS). This is an increase of 16% from last year. Conclusion - The computer and data projector are still being heavily used. Pieces of equipment such as the DVD/VHS players are phasing out. Document cameras and Smart Sympodiums show a decline, but not significant to discontinue installations of these items. 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 discontinue installing a VHS/DVD player in upcoming classrooms. All classrooms will continue to have a port for portable VHS/DVD players to be used, if it is requested. All DVDs will be played through the IMS computers.

Connected Documents

2013 IMS SURVEY RESULTS
Keystone Report for spring 2013
RMS SOURCE USAGE HISTORY

M 2: Software Usage

Query instructors of record for the spring 2013 term in order to determine what software is being utilized.

Source of Evidence: Activity volume

Target:
IMS classrooms are used by a very diverse group of faculty. Most instructors are accessing the internet; however, three areas of usage were noted. IMS will continue to gather a list for software that is not supported on our computers in order to determine current needs. IMS does not control the software package on the computers; therefore, any target set will be based on the most current semester usage. 1. A software usage of 50% or higher is used to isolate common software. 2. Due the the increase in Youtube usage, a target for the media players is 10% or above usage. 3. Lecture capturing software is on all IMS computers. We want to continue to monitor the usage of this software.

Finding (2012-2013) - Target: Met
Software Usage – Survey ONLY The software on the IMS computers is the same as the software used in the OAL labs. The only software specific for the IMS equipment is the software for the Smart Sympodiums. The usage results for the classrooms were as follows: MS PowerPoint 87%, Adobe Reader 57%, and Smart Notebook 8%. In the area of Real players the usage results were as follows: MS Media Player 31%, RealPlayer Media Player 16%, and VLC Player 14%. Twenty percent used other software and 4% did not use any software. No significant increase in the software usage. IMS invited the participants to list other software that is used, but was not specifically listed on the survey. Some of the requests were for Chrome, Skype, Maple, Matlab, SPSS, and TI-Smartview. Skype is not permitted on our computers according to Networking and Information Security. Here is the supporting statement from their website: Skype is software used to make telephone calls from a computer to other skype users for no charge, or to call land lines and cell phones for a fee. Skype allows 3rd party use of state resources. For this reason, running Skype in the background is not permitted. **The results for the lecture capturing software were as follows: Camtasia and/or Cantasia Relay had only 8.00% usage, whereas Centra had a 3% usage. The usage is about the same from past years. In conclusion, the software usage averages around the same as last year. IMS and OAL offer the same software package, except for the software for the Smart Pen Tools on the IMS computers. The software is being utilized.
**M 3: Downtime**
This year we charted downtime relying heavily on RMS reports. We also reviewed the Keystone reports and comments on the annual survey.

**Source of Evidence:** Existing data

**Target:**
IMS wants to maintain a 99% rating of classroom uptime or quality of service. (Provided by the RMX reports)

### Finding (2012-2013) - Target: Met
RMS – We used the QOS report, this measures the Network/Power uptime of the AMX central controller in each of the IMS classrooms, to get a more realistic measure of equipment downtime. If this device is offline, none of the other features of the room can be accessed without an IMS technician intervention. This report gave an average uptime for 129 classrooms of 99.16%. No data is available for the remaining 25 classrooms that were in the process of being added to RMS. All classrooms are now added. Keystones – Over 200+ trouble tickets were created by IMS staff and others during the spring 2013 semester, 99% of them were closed. All issues were resolved. More steps will be taken to post the actual time that it took to close these tickets. These trouble tickets cover a wide range of problems from software issues to extension cords needed. IMS will filter this report for the next 2014 cycle and include only pertinent information directed toward the operation of the classroom. Survey – Two factors were listed on the survey regarding downtime; equipment malfunctions and software problems. Downtime experience, of an hour or less, by the faculty was 56% and it was to the data projector, VHS/DVD player, document camera, or Smart Symposium malfunctioning; 99% reported software issues/logon issues. Upon further analysis it was discovered that 1% of the faculty experience no downtime while from computer/software issues and 44% experienced no downtime while using the data projectors and or other components (VHS/DVD Player, Doc Camera, Smart Symposium). Seventy-two percent of the faculty experienced downtime of less than an hour due to the computer/software issues; and 47% experienced downtime 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. Conclusion IMS continues to make improvements in getting the equipment working as quickly as possible. The results of the survey were subjective and subject to the environment at the time of the survey. This, along with the Keystone reports proves that problems occurred. However, neither depicts the actual downtime of a classroom. They do depict discomfort on the behalf of the faculty. IMS always has portable equipment for any inconveniences caused by equipment malfunctions. The RMS reports not only reflect usage but also supports that all classrooms listed do not have large downtime period. Software – SURVEY ONLY - Although software and logon issues were high this year, great strides have been made between LSS and IMS. Great improvements have been made in integrating the IMS systems and the OAL software.

**Connected Documents**
- [2013 IMS Survey Totals](#)
- [Keystone Report for spring 2013](#)
- [QUALITY OF SERV FALL 2012 AND SPRING 2013](#)
- [RMS QOS FALL 2012](#)
- [RMS QOS Spring 2013](#)

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

**Data Projector Lamp Usage**
*Established in Cycle: 2012-2013*

In an effort to maintain the met target of 99% uptime for the Resource Management Suite (RMS), IMS is closely monitoring lamp ho...

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

**M 4: Customer Service**
IMS asked the faculty to rate the services of each Media Center (Blocker, Harrington and West Campus). IMS also asked the participants to rate our response time and customer service abilities when problems occurred. This was done on our annual survey.

**Source of Evidence:** Service Quality

**Target:**
We want to respond to complaints promptly and efficiently, with a ratings of 85% or higher response time. We want our customer service ratings per center to be at an 8 or above (10 being the highest ratings).

### Finding (2012-2013) - Target: Met
Customer Service – Survey ONLY We asked some new specific questions concerning our services. The results were as follows: 47% reported problems; 91% reported that we responded in a timely manner; 93% percent reported that we understood their problem; 86% responded that the problem was resolved or a solution was found; and 98% reported that our staff reacted in a professional manner. Each individual center was rated by the faculty was 56% and it was to the data projector, VHS/DVD player, document camera, or Smart Symposium malfunctioning; 99% reported software issues/logon issues. Upon further analysis it was discovered that 1% of the faculty experience no downtime while from computer/software issues and 44% experienced no downtime while using the data projectors and or other components (VHS/DVD Player, Doc Camera, Smart Symposium). Seventy-two percent of the faculty experienced downtime of less than an hour due to the computer/software issues; and 47% experienced downtime 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. Conclusion IMS continues to make improvements in getting the equipment working as quickly as possible. The results of the survey were subjective and subject to the environment at the time of the survey. This, along with the Keystone reports proves that problems occurred. However, neither depicts the actual downtime of a classroom. They do depict discomfort on the behalf of the faculty. IMS always has portable equipment for any inconveniences caused by equipment malfunctions. The RMS reports not only reflect usage but also supports that all classrooms listed do not have large downtime period. Software – SURVEY ONLY - Although software and logon issues were high this year, great strides have been made between LSS and IMS. Great improvements have been made in integrating the IMS systems and the OAL software.

**Connected Document**
- [2013 IMS SURVEY RESULTS](#)

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

**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:** Finished

**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 gage downtime lost to equipment or computer/software issues. Will use this in conjunction with annual surveys.
Established in Cycle: 2011-2012
Implementation Status: Finished
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

Data Projector Lamp Usage
In an effort to maintain the met target of 99% uptime for the Resource Management Suite (RMS). IMS is closely monitoring lamp hour usage semesterly.

Established in Cycle: 2012-2013
Implementation Status: In-Progress
Priority: High

Relationships (Measure | Outcome/Objective):
Measure: Downtime | Outcome/Objective: Provide Quality Service
Projected Completion Date: 08/2014

Analysis Questions and Analysis Answers

Based on the analysis of your findings, what changes are you currently making to improve your program? Identify the specific findings you analyzed and how they led to your decision.

In an effort to improve our program, IMS will continue to rely on the reports from Resource Management Suite (RMS) regarding equipment uptime, source history usage and lamp hours. RMS is essential because it allows us to control and monitor all the devices in each classroom. Due to the faculty dependence upon the equipment in the classrooms, we want to maintain our current uptime of 99%. Therefore in the future more emphasis will be directed toward monitoring the lamp hours on our data projectors. By monitoring the hours we can change lamps before a problem occurs with the data projectors. The data projectors and the computers show the highest usage in all of our classrooms.

Provide an update for completed or ongoing action plans from the previous year(s). Highlight your improvements.

The following actions have been implemented and are finished: Equipment Familiarization, 2008-2009; Equipment Familiarization, 2009-2010; Continue to hold training sessions on classrooms that have new installs; and Usage and Downtime. However, we will always continue to perform these actions in order work the faculty and maintain the classrooms under our control. There will always be a new faculty member that will need training. We target at least 12+ classrooms for upgrades; therefore, there will always be training sessions, if needed, for the new equipment. And last, data gathered from RMS, Keystones and Surveys will allow us to gather needed data on the equipment usage and downtime. This also allows us to target certain equipment that may need to be discontinued. Due to our success in the areas above, IMS is gaining more classrooms. Our next action plan, with more classrooms coming on line, will be to monitor lamp replacements and change the lamps in our data projectors before the warnings messages appear. RMS will provide the data for us to effectively perform this with no class time being lost.

Detailed Assessment Report
2012-2013 Instructional Technology Services
As of: 12/11/2013 04:09 PM EST
(Includes those Action Plans with Budget Amounts marked One-Time, Recurring, No Request.)

Mission / Purpose
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
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
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 (2012-2013) - Target: Met
93% of survey respondents rated their level of satisfaction with training events as satisfied or better, with the training and support services provided by 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 (2012-2013) - Target: Not Reported This Cycle
ITS is reviewing workshop/event registration systems that have a robust reporting/tracking feature and one which will automatically generate workshop evaluations. The current workshop registration system lacks a robust reporting tool as well as other tools, making it extremely difficult to extract a list of workshop completers to use as survey recipients.

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.

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 (2012-2013) - Target: Met
93% of survey respondents indicated a satisfactory resolution to their issue or problem reported 08/01/2012-05/31/2013. Surveys are generated and managed by the BMC Footprints help desk software system.

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 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 (2012-2013) - Target: Not Met
92% of survey respondents indicated satisfaction with Service Desk initial response time.

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 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 (2012-2013) - Target: Not Met**
809 survey respondents rated their level of satisfaction with support services provided by ITS. Responses indicated an overall satisfaction rate of 93% related to timeliness of response and resolution of service requests.

**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 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 (2012-2013) - Target: Met**
The Resolution Time Service Level Agreement was met at a rate of 99% for the 4806 issues submitted 08/01/2012-05/31/2013. Issues generated from the receipt of SPAM email and other non-customer contacts were deemed invalid and omitted from the statistics.

**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 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 (2012-2013) - Target: Met**
eLearning System Up Time was 99.91% for the 2012-2013 period. eCampus System Up Time was 98.20% for the 2012-2013 period.* *Note the eCampus system was implemented in January 2013, so findings are based on half period calculations.

**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 (2012-2013) - Target: Met**
The Response Time Service Level Agreement was met at a rate of 99% for 4806 issues submitted 08/01/2012-05/31/2013. The SLA was met at 100% for issues with a priority that was categorized higher than Normal, such as Critical, High, and Medium.

**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 (2012-2013) - Target: Met**  
The Resolution Time Service Level Agreement was met at a rate of 99% for the 4806 issues submitted 08/01/2012-05/31/2013. Issues generated from the receipt of SPAM email and other non-customer contacts were deemed invalid and omitted from the statistics.

**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 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

**Target:** The ITS applications team will resolve issues within a 30 day period.

**Finding (2012-2013) - Target: Met**  
2012-2013 Applications Team Performance Report showed an average of 14.49 days to resolve issues.

**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

**Target:** Successful data center switchover of infrastructure for disaster recovery procedure testing.

**Finding (2012-2013) - Target: Met**  
eLearning system data center switchover was completed successfully on August 15-18, 2012. eCampus system data center switchover is scheduled for July 20-27, 2013.* eCampus is a new application implemented January 2013.

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

**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):**

<table>
<thead>
<tr>
<th>Measure</th>
<th>Outcome/Objective</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constituent Survey</td>
<td>Provide High Quality Training.</td>
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</table>

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

**Projected Completion Date:** 10/2012

**Responsible Person/Group:** Carol Henrichs
Mission / Purpose

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

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 software and departmental procedures.

Source of Evidence: Service Quality

Target:

Target is 80%

Finding (2012-2013) - Target: Partially Met

Previous satisfaction measurement methodologies did not provide a statistically significant response. We have implemented a combination of new survey software and departmental operating procedures to provide a more timely (in some cases, immediate) response to customer feedback. This includes alternative methods for customers to leave feedback (such as URL’s, QR codes, and physical comment cards left by on-site technicians), routing specific feedback types to specific Telecom department workgroups, and timeframe goals for Telecommunications department staff to reply to specific comments. We are using the Telecommunications Advisory Board to help us refine procedures, improve response rate, and discuss trends.

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 continue to 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 (2012-2013) - Target: Partially Met

A previous benchmarking survey failed to receive a statistically significant response from the institutions contacted. A new survey has been designed to promote response by institutions through abbreviated, easy-to-answer questions. We will also contact institutions with which we have a close operating relationship to further encourage participation and response.

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 Critical – Loss of one building Minor – Loss of one or two buildings

Source of Evidence: Verifying/Proving/Capturing

Finding (2012-2013) - Target: Partially Met

Critical – Loss of one building Minor – Loss of functionality of one building Campus Voice Mail System - The TAMU Voice Mail system is a
Details of Action Plans for This Cycle (by Established cycle, then alpha)

Plan of Action 2010-2011

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

**Finding (2012-2013) - Target: Met**

This year we have added an additional area of measurement. We are collecting and publishing the raw numbers on the conversion from Centrex to VoIP on the Telecommunication Web site (http://telecom.tamu.edu/Reports/Phone_Line_Metrics.php). Progress on the transition can be tracked at http://telecom.tamu.edu/Reports/Phone_Line_Metrics.php.

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

**Established in Cycle: 2010-2011**
**Implementation Status: Planned**
**Priority: High**

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 (2012-2013) - Target: Met**

Major System monitoring continues for critical and major events. Target uptime for these services continues to meet expectations. Minor event monitoring for services has not been met in the last year. This work is starting to progress with new staff recently hired that will aid in meeting this goal. Uptime measurement of Broadsoft continues with 100% uptime reported for this year. This is being expanded to a graphical form for trend analysis. In the coming year backup power plants will be included into uptime measurements. Product will be purchased in the coming year that will aid in the specific targeting of localized call quality issues on the campus network.

**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 (2012-2013) - Target: Met**

This year not only did the transition of the campus telephone services migration to VoIP continue but we added hosted services to Central Texas A&M University and to the Texas A&M University Wesleyan College of Law. As of August 31, 2013, we will have converted almost 5,000 of 17,151 TAMU lines or 29.1% to VoIP. In June of this year we implemented new procedures while will allow us to increase the rate of transition from the current 2,000 per year to 2,500 per year. This will allow us to complete the transition on time or ahead of schedule. We added VoIP Call Center services to three major call centers this year and are working with the CIS on a campus wide Lync Integration. The System offices will be transitioned to VoIP in the fall of 2013 which is an additional 650 lines. Progress on the transition can be tracked at http://telecom.tamu.edu/Reports/Phone_Line_Metrics.php.