Information Services and Technology (IS&T)
FY05 Q2 Report
For the months of October 2004-December 2004

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# IS&T FY05 Q2 Report (Oct-Dec 2004)

## Table of Contents

I. Office of the Vice President ................................................................. 3  
II. Academic Computing........................................................................... 5  
III. Administrative Computing ................................................................. 12  
IV. Client Support Services ................................................................... 19  
V. Operations and Infrastructure .............................................................. 25  
VI. Telephony and IS&T Shared Services ............................................... 45  
VII. Appendices
   A. IS&T Financials................................................................................. 49  
   B. IS&T Summary of Projects (not included – see [http://itinfo.mit.edu/work](http://itinfo.mit.edu/work) for listings of active, completed and pending projects in IS&T)
I. Office of the Vice President

The major effort that dominated the work of the IS&T Leadership Team and the Vice President during the Second Quarter, FY 2005 was the development of the FY2006 Budget for IS&T and the rollout of some new initiatives.

The Directors and I invested much of our time working with the managers and team leaders to develop FY2006 budgets. During this work we reviewed the work we currently are doing in FY2005, what needs to continue, what can stop and what new initiatives or services we want to pursue for the future.

When preparing the FY2005 budgets, I intentionally put aside $800K for big initiatives that we would like to do if we had the money. The Directors and Managers were asked to come up with proposals for what key things we might use this money to support. There were about 16 items submitted for consideration, totaling approximately $4M. We reviewed the top choices and agreed to launch the following initiatives:

$250K allocated to do the following "3" big, new initiatives in FY05:
- Establish a Client Relationship Management Team - Director responsible is J. Grochow; Leads are Steve Winig & Joanne Hallisey
- Develop all OKI Service Modules in Java - Director responsible is V. Kumar, Lead is S. Thorne
- Residence Hall Technology Labs - Director responsible is V. Kumar, Leads are Phil Long and Oliver Thomas

$50K was allocated to do the following study in FY05:
- Next Generation Network Media Service - Director responsible is V. Kumar; Lead Dennis Baron

We were also successful in launching the IT-SPARCC governance board and began work on developing IT principles for MIT. There was also quite a bit of work and progress in the areas of Project Management methodology and templates, Relationship Management program development and initial hiring, development of a draft IS&T Strategic and Operational Communications plan and collaborative work with other MIT communications experts to identify potential models for communications strategies.
Some of the commitments for the Third Quarter, FY2005 include:

- Continue work with IT-SPARCC to develop a process for getting IT into budget and strategic planning process at the Institute. Make initial recommendations to sponsors – Bob Brown and John Curry.

- Work with the FY06 Budget based on the approved level of funding to identify allocation and funding of specific work across IS&T.

- IS&T Communications – continue work on a communications strategy for IS&T; assist in work with IS&T website and IS&T newsletter to make sure branding and messages are consistent; implement monthly email to staff sharing updates on “what’s new in IS&T”; and release several communication tools for staff to use around email, letter templates, PowerPoint templates etc. Pilot internal IS&T trade/poster show as ALL Hands meeting in May.

- IS&T Projects – solicit input from IS&T (specifically existing project managers); complete development of initial templates; identify pilot projects and facilitate use of the methodology, templates and tools; refine templates and tools based on feedback from pilots; and continue to explore synergies with other MIT departments and other universities

- Relationship Management Program – continue hiring of Relationship Managers; begin integration of Relationship Managers into IS&T; identify target clients (with extensive input from IS&T); and refine and publish program success factors

3/9/2005
II. Academic Computing - Executive Summary

In this second quarter of 2005, progress was noted in all programmatic areas of academic computing. Ongoing support for the student computing environment, delivery of software applications for courses as well as support for Stellar continued. The extent of deployment of WinAthena machines for departments, dorms and projects as well as the software installation activity is indicative of the increasing adoption of this environment.

Also, activities were undertaken in each of the areas that more vividly illustrate the transition in our service profile to support the changing landscape of educational technology use and customer needs, notably:

- The official launching of the new Collaborative learning spaces representing the reconfiguration and repurposing of some of the traditional Athena clusters as new teaching-learning spaces

- Direct partnering with Pro. Shigeru Miyagawa and his team to develop “NarraVision” a federated repository tool for discovering and organizing image content for pilot deployment in mid-February. The development effort was funded in part by the Visualizing Cultures program and has also led to a joint proposal to iCampus. This activity reflects Academic Computing’s increased engagement in supporting the development of educational tools that can leverage the infrastructure and find wide applicability across the institute,

- The implementation of online tutorials for Maple and Matlab, and support for MathML (including plans for collaborating with OCW) indicating the greater focus of the educational technology consulting activity on domain specific support as against general IT support.

This quarter also saw considerable activity related to Cable TV, both in terms of deployment as well as in terms of setting the stage for ongoing strategy and operations.

There was also a heightened level of outreach activity, both internal and external that included communication to the MIT community (e.g. Faculty Newsletter) about new service offerings and programs in support of MIT education and presentations to national/international forums (e.g., Educause) about key MIT initiatives articles in the Faculty Newsletter as well as Ed tech Times and

Considerable effort was also devoted to developing budget priorities for FY’06.
Academic Computing

MISSION

Academic Computing in IS&T promotes and enables technology-based education at MIT. In conjunction with other IS&T groups and MIT units, it provides a range of services to support the planning, adoption, integration and implementation of IT to meet the needs of academic programs, faculty and students.

OVERVIEW

The highlights of the Q2 FY2005 key accomplishments are grouped programmatically and include the following:

SPACES AND PLATFORMS

1. Provide academic computing spaces
   • Drafted document on future priorities of current clusters.
   • Ongoing support of the 37-312 Cluster for fall ’05 regularly scheduled classes and occasional events. See the schedule at http://web.mit.edu/windows/cluster/calendar/index.shtml
   • Implemented all new WinAthena machines in the new public spaces (e51, w20, 56).
   • Operated New Media Center cluster for multimedia development by students, faculty and staff.

2. Laptop program
   • Continued support of the following Fall 2004 scheduled classes:
     Course 1.00  54 HP laptops
     Course 2.671 43 Dell Laptops
     Course 21L 11 HP laptops
     TEAL 42 Dell Laptops
     IS Funded
     Course 6.774 1 HP
     6.001 1 IBM Laptop
   • Course 1.00 and 2.671 have already requested support for the Spring ’05 Semester with 2.671 expected to remain around the same level but course 1.00 needing approximately 100 laptops.
   • Began assessment of the use of the redesigned cluster spaces.

3. Investigate new technologies and approaches of supporting technology-enabled learning that are relevant for both formal and informal learning environments.

Integrated Communications: A short-term project to develop a framework for planning IS&T services to support emerging opportunities and technology for integrated communications was launched Meetings with set of key academic participants/stakeholders have been held to scope the effort.

HPC Cluster (Undergraduate) Project
• Rebuilt the HPC cluster to use the latest version of Rocks and spent time learning a user interface/job submission system by Scalable Systems which we will use for our test course in the Spring. Development for a MIT designed interface is on hold due to time constraints.

4. Athena Cluster Maintenance and related Activities
• Continued ongoing cluster maintenance for 14 Athena spaces (24x7 access), plus 4 computer classrooms.

• Clusters - The official opening ceremony was held in early October for the New Collaborative learning spaces. Brian Murphy presented a case study at Educause on the design development and implementation of these spaces. Over the semester we have been doing usage and support assessments on the spaces and have seen a dramatic increase in the use.

• We met with DUSP and agreed to a pilot of turning one of their Departmental Athena printers into a Public Athena Printer. We expect this to increase our costs slightly but expect to offset that by reducing the load on the Building 7 Rotch Library Cluster printer. The pilot began in January 05.

• Began a Physical Inventory of DLC Athena machines.

• Obtained quotes from various external vendors for full printer support of public printers (HW Maintenance, Paper/Toner and day-to-day maintenance.

5. MIT Cable
• Sixteen live broadcasts took place during 2Q06 for a total of approximately 37 hours of live programming.

• Twenty-eight video links from classrooms were set up for webcasts.

• MIT Cable provided six satellite uplinks for the AMPS MediaLink service.

• Twelve new cable drops were installed.

• MIT Cable gave a presentation and staffed a table for the Event Logistics Open House in W20.

• We acquired, installed and tested two types of hardware to implement broadcast HDTV on cable. Testing took place at our “worst case” locations to determine if HDTV coverage is viable. We determined that converting our present analog channels to digital would pose few technical problems on campus and provide enough bandwidth to allow us to utilize the existing cable plant for both HDTV and an expanded channel lineup.

• There was a major effort to determine demand for cable television services by our campus residents. A detailed survey was produced and published on line. There were 988 unique responses in 10 days. More than 50% of the responses had write-in comments. The results of the survey, which profile nature and extent of interest and current use will serve as useful input to developing Cable TV strategy. The tabulated results of this survey can be seen on-line at http://web.mit.edu/mitcable/www/spotpollresponse.html

• Jon and Randy attended training sessions for digital cable and broadcasting, including the Comcast Educational Technology Summit and the 2004 Digital Cable Technology Seminar produced by Motorola and the Society of Cable Telecommunications Engineers.
• Jon Ward provided ongoing mentoring with Student Cable and the Sportscast project.

• A number of hours were spent on infrastructure repairs and trouble shooting problems in the Stata Center.

Program Area: SOFTWARE AND TOOLS

1. Software Licensing and Acquisition
   • Acquired 50 seat Matlab license and set up server. Worked with OIS and CSS to confirm the process for release of software to the student community for the start of spring ’05 classes.

2. Software Deployment and Distribution
   • Continued support for Fall 2004 classes in 37-312
     - MSI Development
       - Built and/or upgraded a variety of new software packages for WinAthena domains within the academic realm (including DLCs, Building 37, and other clusters with Winathena).
       - Upgraded Adobe Acrobat Professional to 6.0.1
       - Upgraded X-Win32 to 6.0.2
     - Built an entirely new browser/email suite with Plugins consisting of:
       - Mozilla Firefox 1.0
       - Mozilla Thunderbird 1.0
       - Quicktime Player 6.5.2
       - Shockwave Plugins 10.1
       - MathML Plugins
       - Flash Plugins 70
       - Java JRE & JDK upgraded to 1.5.0 and modified Java 3d to work with 1.5.0
     - Upgraded Matlab to R14 service Pack 1 (necessary for the Mathworks company course over IAP)
     - In support of the IAP “Jacobian Workshop” built an MSI for a program called OpenChemPro for use in their course.
     - Upgraded all public Winathena machines to Service Pack 2 and upgraded all software to versions listed above.
     - Managed all incoming help/support requests from all users for any of the Winathena machines, provided all consulting to faculty utilizing 37 for teaching.
     - Consulting and implementation assistance for Ashdown, Teal, Chemical Engineering, DUSP and our new Public collaborative spaces.
       • consulted and setup a domain for Ashdown to utilize computers that were donated by IS&T.
       • Designed and assisted with the Winathena implementation for Teal.
       • Provided extensive consultation regarding MSI building and domain administration with the Chemical Engineering department who are planning on adding another Winathena lab during spring term.
3. Software Review and Evaluation
   • Affirmed two strategic software programs for continued development – HPC and Educational Content
   • Identified for FY 2005 piloting, three software candidates: Clouseau/Narravision federated repository content organization tool, Tufts Visual Understanding Environment (VUE) concept mapping tool, and Giunti Learn eXact content Packager.

4. Support course management systems (CMS)
   • Conducted usability testing on the Sakai Gradebook including 5 prototype tests; wrote and delivered report.
   • Continued to provide developer resource to Sakai project. Primarily for GradeBook tool design/development

5. Software Tool Development
   • Developed partnership with and acquired funding through the Visualizing Cultures program to develop “NarraVision” a federated repository tool for discovering and organizing image content for pilot deployment in mid February.
   • Partnered with Visualizing Cultures on “PowerfulPoint” iCampus proposal to continue development and deployment of “NarraVision” application for further and wider use at MIT and in support of Visualizing Culture’s K-12 outreach efforts.
   • Developed demonstration of possible future VUE functionality in support of media content conceptualization and presentation.

6. Software Service Deployment
   • Completed service development plan prioritizing infrastructure service development through June 2005 (This was an Integration program activity)
   • High Performance Mathematica in evaluation by various MIT faculty and students in preparation for possible Spring pilot usage.

7. HPC
   • Completed initial of High Performance MatLab. Converting MatLab MPI software from Lincoln Labs.
   • Began generalizing Authorization/Authentication framework for Mathematica/MatLab in support of further HPC activities.
   • Acquired access to Legacy Computing Markup Language (LCML) and LEGEND - Legacy Encapsulation for Network Distribution to investigate as foundation for generalize-able HPC software service support (a partnership began developing with EAPS around this).
   • Identified for investigation thick client visualization software in use by
   • Increased awareness of HPC (and O.K.I) efforts through faculty interaction and Ed-Tech Fair.

Special Initiatives

OPEN KNOWLEDGE INITIATIVE

• Completed fourth iteration of XOSID model for abstract definition of the O.K.I. Open Service Interface Definitions.
• Created initial C# binding of OSIDs from XOSID definitions.
• Shared XOSIDs with Middlebury College for evaluation for PHP bindings. Middlebury created initial PHP bindings of OSID V2 based on XOSIDs.
• Engaged with new vendors and projects to help increase adoption, including: Cisco GLN, Sentient, Harvest Road, Apple and ARTStor
• Created and documented initial conceptual understanding of plan to migrate OSID maintenance activity to IMS Global Learning Consortium

SAKAI

The project continues with project management, usability testing and Style Guide work. Sakai 1.5 (based on legacy code) was released. MIT’s efforts were on the Gradebook tool, grading OSID, and framework II. See http://www.sakaiproject.org

Program Area: EDUCATIONAL TECHNOLOGY CONSULTING

1. Identify faculty needs.
   • Completed report on Science and Humanities Ed tech initiatives.

2. Support faculty use of educational technology.
   • Supported faculty use of animations in 1.061 (Heidi Nepf); sat in on class to learn how the software was used, gauge student reaction and identify other potential technological solutions for class.
   • Ongoing support and consultation for Valencia server and Cultura project for Foreign Language & Literature classes

3. Inform the development of environment for sustaining educational initiatives.
   • Began investigating electronic portfolio software and identifying potential campus uses and users
   • Began investigating Wiki software and identifying potential campus uses and users
   • Investigated and wrote overview of synchronous collaboration tools

4. Stellar Support
   • Provided ongoing tier three support of Stellar course management system.
   • Planned and prepared three IAP sessions for Stellar.
   • Conducted six Stellar one-to-one training sessions, 2 with large follow-ups.

5. Support Faculty Use of Mathematics Software
   • Implemented online tutorials for Maple and Matlab. Planned 11 sessions IAP training for Matlab through Mathworks.
   • MathML support planning and strategizing with OCW staff

Outreach and Communications

• The November 2, 2004 Ed Tech Fair was successfully planned and conducted. A Follow-up survey was also sent out to participants.

• Planned, advertised and hosted Cluster Grand Opening event
• Completed annual review and update of Teaching with Technology web site.

• Conducted 2 Crosstalk seminars on educational technology initiatives
  ▪ Nov. 18 – The Promise and Reality of Web-based Professor David Pritchard (Physics)
  ▪ Dec. 9 – Hand-held Games and Simulations for Learning – Professor Eric Klopfer, Director of the MIT Teacher Education Program

• Planned and hosted 2 Ed Tech Partners meetings

• Developed AC communication and engagement plan in alignment with overall IS&T strategic communication plans.

• Faculty Newsletter article on Academic Computing services.

• Maintain routine publication of articles and news to the Ed Tech Times Newsletter. 7 articles were posted in Q2.

• Presentations at Educause
  ▪ Learning Space Design
  ▪ High-Performance Cluster Computing: A Tool for Undergraduate Instruction?
  ▪ Transforming Technology-Enabled Informal Learning Spaces
  ▪ The CMS and Beyond

• Conducted town hall-style meetings in three locations to build student and faculty engagement for the ResTech projects in the spring. Presented ResTech initiative at Housemasters’ dinner in November and met with Random Hall and Simmons students in December.

• Developed and built the new Computer Cluster (37) Information pages, request forms and scheduling information - http://web.mit.edu/acis/

• Conducted "welcome wagon" outreach to new MIT faculty via meetings, phone and email communication
III. Administrative Computing - Executive Summary

Administrative Computing continued its first quarter momentum and devoted significant resources toward our major Institute initiatives in the second quarter.

The first phase of the EH&S Project – PI Space Registration and SARA (Superfund Amendments and Reauthorization Act) Reporting – was successfully delivered to campus on November 8. Phase 1 included the delivery of supporting reports from the Data Warehouse.

The SAPBud Project moved into final preparation for the approaching third quarter delivery of Phase 1. The implementation of Phase 1 includes SAPBud web pages to support budget submission and review activities.

The Plant Maintenance Project also prepared for the approaching third quarter delivery of Phase 2. The implementation of Phase 2 includes dormitory repair and maintenance, and preventive maintenance for all Central Utilities Plant equipment.

The HR-Payroll Project completed the Payroll Blueprint document for time collection and evaluation, and payroll processing. The project moved into the Realization phase and began the design and development of the payroll module. The project also collaborated with the Compensation Office to deliver a phased implementation of the SAP Annual Salary Review (ASR) process. ASR training and support was provided by IS&T staff.

Administrative Computing continued to transition from a primarily SAP development and support organization to an organization that grows and supports applications on a multitude of platforms.

A charter for the Departmental Database Applications Development Project was approved by IS&T. A cross-departmental team was formed to identify and quantify current database applications and service interests in the context of Departmental Computing and make recommendations on whether and how common and strategic IT services might be made available to the community.

Administrative Computing collaborated with the Operations and Infrastructure technical teams, SAP Business Process Owners, and the MIT Audit division to successfully execute a simulated SAP production disaster recovery.

From an organizational standpoint, Administrative Computing is working through a series of transitions which started in the second quarter and will continue through the end of the fiscal year. A search committee recommended the hire of Jenette Simpson to serve as the Administrative Computing ERP Systems Manager. In the next quarter, we will initiate a search for a new director so that by FY ’06 the senior management of Administrative Computing is stabilized and staffed by the highest caliber individuals the area has to offer.
Administrative Computing

MISSION

• Administrative Computing Services exists to bridge technology and business expertise in diverse functional areas, including financial, logistics, and human resources. Administrative Computing Services provides business technology services for MIT, to:
  o Reduce administrative burden
  o Reduce the cost of transaction processing
  o Reduce the cost of administration against research budgets
  o Integrate information for better decision-making

Accomplishments and Goals by Program

PROGRAM: Departmental Services / Support

Service/Activity/Project:

I. Improve Departmental Business Processes

Accomplishments:

• A charter was approved for the Departmental Database Applications Development Project by IS&T. A cross-departmental team was formed and a survey was developed for execution in early January.
  
• ECAT
  o Worked with Procurement to begin planning for SciQuest supplier enablement
  o Completed project work for Nextel and Verizon Wireless departmental catalog rollout and began pilot testing.
  o With the Publishing Services Bureau, rolled out Minuteman Press of Cambridge sub-catalog for IS&T business cards.
  o Tested and negotiated changes with Office Depot on their upgraded catalog site. (Note: this was primarily a server platform swap, but there are some new/different catalog features.)

• Merchant Services Ecommerce
  o Rolled out web registration form for MIT Museum education program.
  o Began working with the MIT Museum on ecommerce solutions for their other business areas, including Collections and Function Rentals.
  o Began working with WCS and LNS on developing a registration site for a Physics Conference in the spring.
  o Went live with several e-commerce merchants including: Council on Primary and Secondary Education (CPSE), Biology, SEDS/Mars Society, and Sloan GMS events.
  o Worked with SMR and WCS to put SMR Fall issue in production. Began discussions about future project priorities.

• Worked with HR-Payroll Project and the Benefits Office to begin to identify and test changes that may need to be made to the Tufts Health Plan, Blue Cross Blue Shield, and Delta Dental EDI maps to resolve other discrepancies identified during Open Enrollment and accommodate changes in how some of the HR records in SAP are now being used. (e.g., with the new training module in use, record can now be created with very limited information. If these records are later needed for benefits enrollment, the
existence of missing or incorrect data in the historical record sometimes causes us problems.)

Goals:

• Execute the Departmental Database Applications Development Project community survey in January. Begin review of recommendations with IT Leadership in February.

• ECAT
  o Continue development work and conduct functional testing with SciQuest.
  o Attend SciQuest user group meeting in early February.
  o Work with Procurement to plan communications for and roll out new Office Depot catalog.
  o Work with IS&T Telephony and Procurement to communicate availability of Nextel and Verizon Wireless catalogs.
  o Continue work to migrate to new ECAT web page design.

• Merchant Services Ecommerce
  o Roll out additional MIT Museum ecommerce forms.
  o Work with other new ecommerce merchants, as appropriate.
  o Work with SMR and WCS to put Winter issue in production.

• Complete and roll out changes to Tufts Health Plan, Blue Cross Blue Shield, and Delta Dental EDI maps, as appropriate.

• Design process and enhance program, transaction, and reporting features that will allow the Department of Facilities to maintain inventory of tools in SAP. The new process will allow Facilities to move from a single spreadsheet method to a detailed and integrated system for equipment tracking. The plan calls for Facilities to utilize the existing PMATS system with minor customized enhancements and controls.

• Implement SAP Good Receipt process for Broad non-inventory items to aid in accuracy and timeliness on invoice payments.

• Complete configuration and design to allow for Payroll deductions to automatically produce third-party payments out of Accounts Payable.

• Design process and develop program for receiving electronically fed documents in SAP to automate and streamline the invoice process for casual labor services at MIT. MIT’s existing voucher payroll process is being phased out and will be replaced with new procedures by July 1, 2005. The new process is shifting a large volume of invoices from the Payroll Office to Accounts Payable.

II. Sustain Departmental Administrative Solutions

Accomplishments:

• Worked with Operations and Infrastructure technical teams, SAP Business Process Owners, and the MIT Audit division to execute a simulated SAP production disaster recovery.

• Worked with the IS&T Infrastructure Applications team (ISST) and the CAO Procurement Office to migrate from a departmental faxing infrastructure that had become problematic to a low-cost custom solution employing an open-source fax gateway and SAP’s SAPconnect interface environment.

• Collaborated with Operations and Infrastructure staff to decide on server platform hardware (SUN/Solaris) to replace that of the current (HP/Tru64) SAP landscape.

• Assumed maintenance of Parking Pass and T-Pass applications.

• Completed MIT Events Calendar version II planning and kick-off phases.

• Migration to new procurement card vendor, GE Capitol.
Goals:
- Begin integrating Netweaver (Web Application Server and SAP Portal) environments into the SAP system landscape, in order to support the Java development efforts of the HR-Payroll and EHS projects.
- Work with Operations and Infrastructure and develop a plan to cut-over to the new SUN/Solaris platforms during calendar year 2005.
- Work with Operations and Infrastructure to support their migration of the data on current HP Storage Area Network (SAN) onto EMC hardware.
- Prioritize enhancements and new development requests for Parking/T-Pass applications.
- Complete MIT Events Calendar version II requirements gathering.
- Work on effort to bring SciQuest in as ECAT vendor. Final rollout 6/30/05.

PROGRAM: Enterprise Services / Support

Service/Activity/Project:

I. HR-Payroll Project

Accomplishments:
- Completed Payroll Blueprint (detailed design) documents for time collection and evaluation, and payroll processing. The blueprints include all system-related tasks, including a Testing Strategy Plan and a Payroll Conversion Plan.
- Successfully completed Payroll Blueprint reviews with SAP Quality Assurance consultants and Payroll Business Owner.
- Created several prototypes for Time Evaluation solutions.
- Began Payroll Realization Phase.
- Partnered with HR Compensation Office in phased rollout of SAP Annual Salary Review (ASR) process. Delivered functionality to all Assistant Deans, and to DLC administrators in three schools. Hands-on training, taught by IS&T staff, was attended by 40 administrators for the Sponsored Research Staff.
- Training and Events completed enhanced GUI reports and delivered training on the reports to Training Registrars and Training Managers.

Goals:
- Complete Payroll Realization Phase, including the following deliverables: SAP Payroll and Time configuration; custom SAP development for Time, Appointments and Cost distribution; Detailed Testing Plan and Test Cases for Payroll Final Prep Phase; development of interfaces and conversion programs.
- Work on Payroll realization phase: developing conversions, interfaces, and other custom programs.
- Complete planning for Payroll Final Prep Phase.
- Continue phased rollout of the SAP ASR process for the Support Staff review. More than 60 additional people will be trained during Q3, leaving only a few areas to be converted to the SAP process. The goal is to have all departments live in SAP by spring '05.
- Lock-in business requirements for Training and Events system enhancements and begin development of the enhancements.

II. EHS Project
Accomplishments:

- PI Space Registration and SARA (Superfund Amendments and Reauthorization Act) Reporting (Phase 1) successfully went live on November 8. Supporting reports from the MIT Data Warehouse went live at the same time.
- Interim legacy system for PI Space Registration retired on November 8.
- No adverse effects on other SAP applications as a result of the go-live.
- Two subsequent bug fix/enhancement releases have been delivered for Phase 1.
- Initial web version of EHS-MS Manual has been developed and submitted to the EPA.
- Lincoln Laboratory is leveraging campus configuration and development for Phase 1 and subsequent project phases.

Goals:

- Lock-in business requirements for inspections, Consequences, Corrective Actions, and Incidents (Phase 2).
- Complete Phase 2 blueprint and functional specifications documents.
- Begin Phase 2 implementation.
- Develop a strategy for supporting custom (non-SAP) database applications.

III. SAPBud Project

Accomplishments:

- Conducted two integration tests of the web pages.
- Conducted several volume tests of the web screens.
- Completed issue identification, issue resolution, developed and tested fixes required for web performance issues.
- Worked with CSS to complete development and production of application quick reference cards and online help documentation.
- Successfully delivered 6 school demonstrations of the web pages.
- Successfully loaded and reconciled FY04 and FY05 historical budget and actual expense data.
- Completed development of carry forward analysis and posting program.
- Significantly enhanced performance of Budget Review and Submit transactions through database improvements and coding changes.

Goals:

- Complete development and unit test of all BDM functionality.
- Conduct user tests of all BDM development; re-work if necessary to resolve any issues identified.
- Go live with SAPBUD web pages in February to support budget submission activities.
- Provide application support and stabilization services for released applications.
- Support the OBFP and end users when they are using the web pages.
IV. Plant Maintenance – Phase 2

Accomplishments:
• Completed Business Requirements documentation.
• Completed system design and SAP configuration.
• Completed Integration Testing for Facilities Phase 2 enhancements.

Goals:
• Coordinate testing for Facilities and CUP releases.
• Complete integration testing for Central Utilities Plant and Department of Housing.
• Complete Phase 2 implementation.

V. Improve Enterprise Business Processes

Accomplishments:
• Participated in Phase 1 of the AAC II/CAO Travel Working Group to document current travel processes, and to identify proposed new processes for travel credit card, online ticket booking, and electronic travel expense reporting.
• Implemented several improvements to the 2005 Benefits Open Enrollment web transactions, the most significant being the creation of on-line Personal Enrollment Guide using Adobe. This improvement will save MIT ~100K year by providing in-house versus outsourcing.

Goals:
• Continue to participate in Phase 2 of the AAC II/CAO Travel Working Group to investigate solutions for policy and procedural issues identified in Phase 1, and to explore solutions implemented at similar sites.

VI. Sustain Enterprise Administrative Solutions

Accomplishments:
• Provided a reporting mechanism to identify and correct fund center name / cost object supervisor name discrepancies.
• Created training plan for SAP Web Application Server developers (Java). Began Step 1: Java Fundamentals for several developers.
• Kicked off Administrative Portal Redesign effort.
• Applied Internet Transaction Server (ITS) support packs 13 and 14 along with several other SAP recommendations to improve the stability of the application.
• Updated Roles Database to new hardware and database release.

Goals:
• Continue next step of SAP Web Application Server developer (Java) training plan. Step 2: Attend SAP’s JA300: WebAS Java Development course.
• Develop prototype transactions using WebAS using both using both Java Server Pages and WebDynpro to determine which method (or both) best fits MIT’s architecture.
• Administrative Portal Redesign kick-off.
• Finalize project plan for SAP Hardware Renewal. Projected go-live in May 2005.
• Review SAP code review process and development standards. Incorporate changes based on Payroll and EH&S development.
PROGRAM: Administrative Computing Headquarters

Service/Activity/Project:

I. Organizational Architecture and Program Management

Accomplishments:

• Sent three staff members to SAP’s Tech Ed 2004 conference in San Diego.
• Initiated a search for an experienced senior SAP Basis Administrator.
• Filled Analyst Programmer III position for Technical Services.
• Attended SAP Tech Ed conference, October 4-8. Provided opportunity to learn more about SAP’s technical direction as well as network with colleagues from other Higher Ed’s.
• Created prototype web site for 2005 HERUG Conference to be held at MIT in March.
• Transferred all Administrative Computing Advocacy Team services and responsibilities to Client Support Services.

Goals:

• Fill senior SAP Basis Administrator position.
• Fill Analyst Programmer III (Java) position for Internet Design & Development.
• Fill business analyst position to support SAP Training and Events.
• Assist Jim Morgan and Wayne Turner with preparations for hosting the HERUG conference at MIT on March 21-24.
• Re-institute 90 day plans for Administrative Computing Managers
• Establish some benchmarks for next quarter’s submission
IV. Client Support Services - Executive Summary

The second quarter of the fiscal year can be characterized by a mix of operational services serving the core needs of the community along with new initiatives that arise from the community’s need for new services or service improvements. This has been the case in Q2 FY2005. By October, the fall term has begun to settle in; rhythms and patterns begin to emerge regarding the client help requests. Similarly, CSS and IS&T have now begun moving forward on new services implemented in conjunction with our clients.

• Mobile Devices - after pilot testing with selected faculty in Q1, a release initiative was launched in Q2 with a delivery date for these new services scheduled for the beginning of spring term.
• Hosted an IS&T Open House in N42 to celebrate the combined service center at the front of the building and to invite the community to come and learn more about IS&T services. Over 60 people visited with us.
• With Administrative Computing collaboration, Client Support assumed the responsibility for delivering support services to the administrative community. This involves tight integration of business help activities within Computing Help, leadership for the Administrative Desktop Deployment and Renewal program and the AdminIT program, and the creation and provision of training and documentation services for enterprise administrative projects.
• Under the sponsorship of Jerry Grochow, we made progress on the creation of an IS&T Student Advisory Board (ISTAB); this group, composed of a cross-section of students and IS&T staff, met six times during Q2, hosted one student open forum in Ashdown house, and planned for an open forum during IAP (scheduled for Jan. 13).
• Two cross-organizational collaborative efforts involved CSS staff: the Training Alignment Team is charged to look broadly at training at MIT and to assist in the creation of strategic directions and guidance for training. The Web Services Alignment effort is a combined effort for the Publishing Services Bureau (PSB), Academic Media Product Services (AMPS), the web team in Administrative Computing, and Web Communication Services in CSS. That group presented a status report to key business owners in Q2 and will be reporting to Jerry Grochow in Q3.
• Three CSS-centric projects made progress: using RequestTracker, a new key distribution process was implemented for our annual Matlab renewal process in January; Based upon the project review, the Casetracker to RT migration project moved forward, and CSS staff participated with Telephony staff, Admissions, and Facilities to investigate the next generation of Customer Interaction Management (CIM) systems in order to replace the outdated automatic call distribution system now in use at the Help Desk.
• In collaboration with the Dean for Student Life, Alumni, and OIS staff, IS&T has negotiated with Verizon to provide increased bandwidth to the FSILG’s located across the Charles in Boston. This improved service is scheduled to be in place for students before the beginning of fall semester.

The attached dashboards give an indication of the volume of work and key performance metrics for many of the CSS services. In comparing Q2 FY2004 with Q2 FY2005, it is important to look beyond the total numbers – in many cases the total number may be relatively constant or perhaps may have decreased slightly. Underlying those numbers, however, is the increased complexity and the extended breadth of services offered to the community. In many cases, consultants are spending more time with clients to meet their needs – the requirements and environments are increasing in complexity. In addition, project related efforts in Training, Publishing, Consulting, and Usability require intensive work and cross-organizational coordination to insures that project deliverables constitute high quality experiences for clients. Q3 will see new projects starting; e.g. the training and documentation effort for Payroll; much of the groundwork for new endeavors was laid in Q2.
Client Support Services (CSS)

MISSION

Client Support Services works in partnership with MIT faculty, students, and staff to maximize their effective use of IT services and technology in fulfillment of MIT’s mission. With the goal of meeting client technical help requests wherever and whenever they may arise, Client Support Services cover a broad spectrum of activities: departmental technical support, initial contact and problem resolution through help services, training, communication and consultative assistance to the community, software products, and client security preparedness and response.

Strategic Objectives:
1. Provide prompt, accurate, professional resolution of client requests by means of the most effective interaction modes (multiple dimensions). Serve as the front door to IS&T services and tap expertise across the organization.
2. Create capacity to meet the evolving, increasing IT needs of MIT clients through:
   a. Innovation (Knowledge Base, Content Management Systems)
   b. New services (Software, Hardware, Transactions)
   c. Process (escalation improvements, procedures, workflows for problem resolution, combined/integrated services)
3. Commit, in each objective, program, project in CSS, to integrate and foster programs for staff learning and development.

Accomplishments and Goals by Program

Program 1 – improve direct services to MIT departments, labs and centers

Accomplishments Q2 FY2005
• DITR added new Service Level Agreement for 8 hours per week. Launched new project to combine Admin-IT and the desktop renewal program into more general desktop support function in conjunction with move of business help services to Client Support.
• Web alignment and coordination between the Publishing Services Bureau, Web Consulting Services, and the IS&T Web Team continues to make progress. The group held a presentation to key stakeholders.
• Training developed and offered courses for a number of Institute initiatives: Environmental Health & Science, to help departments use the Web and SAP functionality for EHS, SAP Budget module, SAP Training and Events Management module.
• The Usability Lab provided usability tests/reviews for twelve projects. Usability lab redesign completed.
• ATIC lab completed accessibility evaluations for seven MIT web sites and presented on web accessibility to course 21W.785 ‘Communicating in Cyberspace’, and participated in the EHS Ergonomics Fair.
• Relationship Manager model, led by the IS&T VP Office, has two pilots active and plans to hire staff.
• IT security support outreach program is in development. A series of pamphlets is now being developed – “Sensitive Data: your money AND your life” was published in November.
• Web Communications services launched or updated 15 web sites/applications and began 13 new consulting projects.
• Updated security web site launched: http://web.mit.edu/ist/topics/security/.
• With Telephony Services, began investigation into replacement for existing Automatic Call Distribution (ACD). Began working with Sentri consulting to look at customer interaction management (CIM)
• the quarter

Goals Q3 FY2005
• Make web alignment presentation to Jerry Grochow.
• Launched new project to combine Admin-IT and the desktop renewal program into more general desktop support function in conjunction with move of business help services to Client Support.
• Complete phase 2 of Environmental Health & Science training rollout
• IT Security Support Outreach to DLCS to continue.
• Launch Training and Events management registrar’s user group.
• Begin Administrative Desktop Deployment & Renewal and AdminIT activities through the leadership of DITR.

Program 2 - improve support services to individual clients

Accomplishments Q2 FY2005
• Logged 21,323 cases from clients during the quarter; 59% were resolved in less than 24 hours.
• Launched Mobile Devices release team to support e-mail and sync functions for Palm OS-based devices.
• Moved MIT Computer Connection and PC Service operations and staff to N42.
• Moved business help functions and activities to Client Support – including first contact help with business problems, desktop and preventative maintenance programs, and consolidation of training efforts for enterprise administrative computing initiatives.
• Hosted an IS&T Open House in N42 on October 28 attended by over 60 members of the community.
• Completed reconfiguration of N42 lobby to for combined service center.
• Began offering hands-on training classes in N42-186.
• Client use of self-help services remains substantial – almost 55,000 hits to our knowledge base for the quarter.
• Subgroup formed to further define scope for benchmarking project for IS&T training programs, Focus has moved from E-Learning to projects designed to comply with federal guidelines.

Goals Q3 FY2005
• Hold breakfast for clients from the administrative/business community (tentatively scheduled for mid-Feb).
• Insure smooth beginning for spring academic term; offer Athena mini-courses and other services to students and faculty.
• Feb 15 target for launch of kiosk in Lobby 7 by a team led by Suzana Lisanti. WCS and DITR will assist in launch of kiosks on main campus and on-going operations.
• Complete roll-out of support for Palm OS devices for email and calendar sync applications.
• Complete roll-out of Outlook Connector for Oracle to clients, including offering hands-on clinics.
• Work with OIS to clarify long term plans regarding changing Tether billing
• Champion improvements for Shuttletrack service.
• Complete consolidation of business help services to community including:
  o Gaining a better understanding of the work
  o Hiring to fill positions
  o Making progress toward completing the transition to the new process
• Complete consolidation of work in N42 combined service center including:
  o Identify support avenues for Athena, Linux, Athena Linux
  o Develop client communication tools.
  o Determine presales administration (HD)
• Staff core support team for payroll project.
• Begin offering Filemaker 7 classes to the community.

Program 3 - Improve relationships, Community outreach and communications to IS&T clients.

Accomplishments Q2 FY2005
• Created IS&T Student Advisory Board. IS&T Student Advisory board held on feedback forums at Ashdown House.
• Supported ITPartners for two luncheons during quarter.
• Held N42 Open House to promote the Combined Service Center in N42. Worked with outside vendors to sponsor and attend event. Attended by over 60 members of the community.
• Coordinated the IS&T offerings for January IAP.
• Software release and IT Security Support messages continued to be refined for effective communications with clients.

Goals Q3 FY2005
• Hold Software Town Meeting while students are on campus during Q3 or Q4.
• Hold Business Community breakfast.
• MIT User Groups will hold three IAP events.
• ITPartners will hold one luncheon and begin planning for spring full-day conference.
• Complete MIT Computer connection web pages redesign and integration into the Computing Help Desk
• Create IS&T Services to Departments brochure.
• Launch effort to redesign the hardware recommendations process
  o Complete process design for administrative recommendations during Q3
  o Complete process design for student recommendations by Q4.
• Hold IS&T Student Advisory Board feedback forum in IAP.
• Complete IS&T home page redesign.
• Begin planning for Spring Open House in Q4.
• Conduct Residential Tech sessions during IAP.
• Examine “Clinic Model” around launch of complex supported products and services.
• Hold clinics for Mobile Devices and Outlook Connector for Oracle.
• Evaluate whether or not to transition FileMaker training to be based on version 7, as well as to update help desk resources to provide FM 7 support.
• Begin process to create brochure for incoming students, web pages of recommended products and letter from Bob Redwine.
Program 4 - improve 3rd party software services and processes:

Accomplishments Q2 FY2005
- With involvement across IS&T, launched Microsoft Campus Agreement for Windows XP and CALS. In addition, Departments have an opt-in option for campus agreements for Microsoft Office.
- Purchased more licenses for Matlab.
- Launched project for Matlab student server to provide the same Matlab access as available on Athena.
- Made Filemaker server, mobile, and Advanced Server for version 7 available.
- Began distributing Linux Red Hat update. Note that it takes six hours to make RH CDs much longer than we anticipated.
- Began making improvements to Matlab distribution process. This project will continue through FY06.
- Began exploration of licensing for Snappermail and SyncML by Synthesis AG.
- Began taking sample surveys of clients who used VSLS service.
- Laying groundwork for improving response to clients – 48 hour turn around will not be possible before FY06.

Goals Q3 FY2005
- Complete campus-wide Matlab renewal
- Develop mechanism to capture the number of graduate student requests for XP since they were kept out of the Microsoft Campus Agreement and feedback has not been positive.
- Continue making progress developing new processes for Matlab distribution.
- Complete process for Matlab availability to students and complete evaluation of the feasibility of creating a custom installer.
- Distribute Windows XP SP2 via MIT’s WAUS.
- Create customized MIT WAUS install tool.
- Make significant progress toward full launch of expectation levels in Q3. This includes the redesign of the product front door creation and maintenance process...
- Re-evaluate CD production environment to develop recommendations for replacement.

Program 5 - improve processes and technology for client support

Accomplishments Q2 FY2005
- Completed redesign of the Help Desk Brain Dump (the internal knowledge base for help desk staff). All of IS&T can access it. https://braindump.mit.edu/
- Increased the number of articles in the stock answers database to nearly 200.
- Began process to evaluate the product Contribute as part of the content management system project. Purchased 100 copies of Contribute for an experiment with community members.
- Consolidation of all Help Desk staff continues with move to one combined weekly meeting. Continued cross training of Help Staff.
- Continued moving towards rotation and cross training of Combined Service Center staff.
- Hired temporary person to full Receptionist/Greeter role at the N42 front desk. This has led to improvements in organization and service levels and subsequently customer satisfaction. Has also improved tracking of client traffic and requests to the Combined Service Center.
• Web Consulting Services has led an investigation into web services for information feeds. At this point, there are experiments with RSS (Really Simple Syndication) in progress.
• Created fixed hours for walk-in service for clients of Volume Software License Service. This has increased customer satisfaction levels.
• Conducted a Project Review for Casetracker migration to RT – review led to several action items to get the project back on track.
• Held a CSS all hands meeting in October with another scheduled for January in Q3.

Goals Q3 FY2005
• Begin project to review internal processes for web development for ERP projects
• Move Filemaker licensing requests to ShopsiteRT
• Draft new CSS job descriptions for compliance with FLSA.
• Complete hiring for open positions.
• Redefine Resnet Coordinator role to respond to changing requirements
• Develop clear project plan and reset timelines for RT/RTFM
• Move ACD out of discovery phase and into delivery phase.
• Clarify handoffs with Admin computing re: creating documentation for new products and services
• deployed via their teams.
• Get agreement and document escalation paths for help problems when they must go to second and third tier expertise across IS&T.
• Begin Administrative Staff Performance Appraisal process.
V. Operations and Infrastructure – Executive Summary

The second quarter of the fiscal year winds down as we reflect upon the work of 2004 and look forward to the opportunities and challenges ahead in the year of 2005. Operations and Infrastructure Services has seen a tremendous amount of change over the past calendar year as we welcomed a new Vice President and began to undertake a significant review of the work of the organization and our alignment with the IT infrastructure needs of the community.

This past quarter saw continued progress on large-scale projects including the new Brain and Cognitive Sciences center and Broad Research Laboratory as the construction on both projects continues into the winter months. We also began to examine the IT infrastructure used to support some of our most critical applications, including SAP, the MIT Data Warehouse, EDI and IXOS. Part of this effort included an inaugural successful failover test of our SAP environment in a disaster recovery scenario. The failover test included the restoration from tape of our SAP environment and other associated systems to the disaster recovery location in E40. One of the key lessons from the failover was the increasing importance of an enterprise storage solution, and we have initiated efforts to replace our existing HP SAN with an EMC DMX 800 SAN solution.

Wireless networking continues to be at the forefront of Information Technology discussions both throughout the world and within higher education. A strong IT environment is important for all universities today as recruitment of students and researches becomes increasingly competitive. Wireless networking is no longer a luxury, but is a part of the utility IT services members of our community expect as part of the world’s leading technical university. This past quarter we continued our efforts to bring a completely wireless campus to MIT by the end of 2005. The current focus of our wireless expansion is on the main and east portions of campus and we hope to have those areas completely covered by the end of January 2005.

Overall this past quarter has been a tremendously busy time of accomplishment of existing efforts, beginnings of new efforts and reflection as we look back on the year of 2004.
Operations and Infrastructure

MISSION

Operations and Infrastructure Services provide the MIT community with the fundamental IT services such as network and network-based applications, service operations and data aggregation and administration to support the full range of academic, research and administrative activities The Operations and Infrastructure Services teams work collaboratively with all other IS&T teams and other IT groups throughout MIT to ensure the highest level of support and service to MIT’s students, faculty and staff.

Accomplishments by Program

Wired Campus

- Alternate Riser in Building E19
  - Construction of the riser system from the basement to the sixth floor of E19 is complete. Punch list items are being addressed, as well as the budget close out.
- Single Mode Fiber - Phase 4
  - As known by the internal order, AKA - fiber tie cable between E19/24, NW12, and W92 is well under way. Engineering is substantially complete. Bid documents and drawings are being developed and the project will be out to bid in January.
- Storm and Sewer Outfall Pipes
  - A proposed change in scope by the city has brought this back to life. The proposed change would extent the outfall pipes past the Johnson Center to Mass. Ave. This proposed change would cross our underground duct banks in three locations. Test pits have indicated an elevation conflict between the two. A solution is currently being negotiated.
- Level 3 Metro Fiber Ring
  - Establish a diverse and redundant pathway into the campus. This issue is being negotiated with the city and current owner (Forest City Development) for a resolution.
- Keeping it running
  - Installed Fiber Circuits for Network Operations.
  - Managed the Moves/Adds/Changes of our low voltage wiring plant.
  - Worked with Facilities on design of IT requirements in Building 5 for the Pappalardo Lab II.
  - Worked with Real Estate on moving MIT Press back on to MIT footprint.
  - Worked on OSP repairs of Telephony Service

Major Building Projects

- Brain and Cognitive Sciences
  - Installed 500,000 feet of UTP copper cable (CAT6) in what will be a total of 1 million feet.
  - Working with Network Operations on collaborative operational relationship, which can save the institute money.
- Broad
  - Continued developing a design with customers.
IS&T Wireless potential. Working with potential to provide operational support in large capacity long term.

**Wireless Campus**

- Continued with the effort to provide complete wireless coverage
  - Purchased an additional 500 access points
  - Completed surveys of the remaining portions of east and main campus which do not yet have complete wireless coverage
  - Completed the installation of approximately 25% of the

**Network Operations**

- Alum.mit.edu e-mail for life
  - Added enhanced spam filtering service based on distributed cluster technology utilizing a collection of inexpensive Linux servers behind a load balancer.
  - Added anti-virus screening utilizing McAfee anti-virus product to inbound mail received by alum.mit.edu addresses
  - Working with Alumni Services to add personalized features for whitelists, blacklists and scoring thresholds

- MIT.EDU mail system
  - Upgraded spam screening service to new distributed version, which utilizes inexpensive Linux servers in a highly available configuration provided by an F5 load balancer.
  - Added commercial anti-virus product in order to scan inbound mail MIT.EDU mail for over 100k different viruses and exploits
  - Acquired additional storage capacity in order to meet growing demands
  - Added additional DMZ mail server for delivering mail to external sites in order

- 10Gb backbone upgrades
  - Installed additional 230V/30A power feeds in buildings W92, E19 and NW12 in order to support 10Gb/s router modules
  - Upgraded 3 more routers to 10Gb/s uplinks

- Network path redundancy
  - Added redundancy to critical infrastructure networks located in W92, W91 and building 24 using HSRP

- Migrate MIT search engine from Inktomi to Google
  - Added a dedicated web server for search engines in order to improve time required to crawl the MIT web site, and to ensure that web crawlers can no longer render the client facing MIT web site unusable

- MIT Network Security
  - Worked with our switch vendor Enterasys to develop a method for providing greater security for MITnet.
  - Developed a preliminary network quarantine for isolating and mitigating threats to MIT’s Network security.
  - Continue development work to integrate a commercial IDS product into our security infrastructure

- Post Office Redundancy
  - Began working with facilities to obtain the necessary additional UPS capacity to support the additional servers required in order to implement redundancy

- Disaster Recovery
  - Established preliminary requirements and connectivity options for a Disaster Recovery location
o Began to outline the services and infrastructure necessary in a disaster recovery situation

- WIN.MIT.EDU domain
  o Upgraded member workstations to XP Service Pack 2 domain wide

- Windows Software Update Service (SUS)
  o An additional 700 clients joined our campus wide Software Update Service for Windows

**Server Operations**

- Expand TSM capacity to provide more robust backup solution for IS&T servers
  o Installed and setup FC switch obtained through IBM Matching Grants
  o Setup TSM to access tape drives in STK ATL in E40
  o Purchased hardware (tape drives, servers) and TSM licenses to handle 1st phase (1/3?) of server backup using TSM as well as expected desktop client growth
  o Migrated an additional 10 non-AFS Athena servers to TSM – Project 917. Working with VMSST to implement TSM backups for Oracle based servers. The target remains to use TSM for 90% of applicable servers by 3/31/2005.

- Upgrade MITVMA/C software including DB2 to maintain vendor support (pending client scheduling) Activity to start in second half of FY2005

- Upgrade HP SAN Infrastructure
  o Evaluated HP and EMC SAN options, and purchased two DMX800’s from EMC. Completed redesign of new SAN infrastructure and developed E40 migration plan.

- Identify new hardware software platforms for enterprise servers
  o Worked with Roger Roach as part of the SAP hardware replacement project and selected Sun as the new SAP platform. Linux efforts continued where appropriate and include support of approximately 40 Linux servers.

- Administrative and Academic server hardware upgrades
  o Major efforts include progress on: TRU64 Platforms – Project 968 (new SAP equipment has been delivered), and the identification of an additional 13 to 18 servers for replacement in the FY005 hardware Plan.

- Maintain data center
  o Additional DOST members trained in HID (hardware installation/removal) process
  o Planned for greater role of DOST staff working with co-location clients, previously handled by DOST management
  o Planned for and conducted tour by operator, previously done by DOST management
  o An additional DOST staff member trained for weekend coverage
  o Held all-staff meeting (covering 3 shifts)
  o Started planning for greater utilization of space outside the machine room by DOST staff; improvements to work environment and data center appearance discussed as well
  o Installed 37 servers (de-installed 4) for Server Operations, installed 12 servers for co-location clients (de-installed 1), printed 1,262,377 pages and 12,324,000 lines, closed 45 hardware logs

- TSM
  o TSM started utilizing STK ATL in E40 for database backup and for client data to accommodate growth.
• Released upgraded TSM client (5.2.3) for Windows and Macintosh to fix some bugs and add features such as encryption.
  • Keeping it running
    o Maintained MITVMA/C with 99.94% uptime and no unplanned system outages.
    o Maintained LISTSERV on VM - created over 100 lists for Alumni Association; worked with Athena User Accounts and Network Operations on migration of 5 lists (and archives as needed) to Mailman.
    o Completed migration of billable clients off MITVMA/C.

**Infrastructure Services**

• EDI
  o Rewrote API scripts and transports for several trading partners
  o Corrected Templar transmission to remove bugs
  o Corrected EDI flow to permit archiving
• FAX Gateway
  o Project to send PO via FAX to smaller trading partners, replacing old system
• Credit Card Processing
  o Added several new stores to support student groups
• SAP/EHS
  o Completed build of SAP EHS data into the Data Warehouse. This included the Analysis, design, extraction, translation, and loading of EHS PI, Space and Room data into the Data Warehouse.

• EHS PI, Room Set, Space Reporting
  o Created e-dashboards, which included reports for EHS and DLC use.
• EHS Training
  o Begin training of EHS Reporting resource
• Converted sqlexport to sqlexport8 in anticipation of Roles Database being upgraded to Oracle 9
  o Converted sqlexport to sqlexport8 in anticipation of Roles Database being upgraded to Oracle 9
• Added "Chair Occupancy Category" to Academic Chair tables
  o Added chair category to the Academic chair tables
• Loaded new cost element hierarchies from SAP
  o Took CEMIT-E, CEMIT-L, and some others and load into WHGL_ACCOUNT_REPORT
• MIT ID Pictures
  o Loaded a test sample of student pictures for use in Dean-on-call reporting
• Online Directory Changes
  o Completed the coding changes to make source of Lincoln Lab employee data in online directory come from campus SAP
• CAO Enhancements
  o Completed enhancements for CAO. These include: Loading new cost element hierarchies from SAP and loading new profit center hierarchy into the Data Warehouse (PCBUD-0)
• Alumni Views
  o Created two user views of alumni data for use by Sloan School.
• HR Directory fix
  o Correct the way the Directory Department was shown in DEPARTMENT_EMPLOYEE_DIRECTORY_VIEW to use admin dept, not primary dept if directory org unit is null.
• Caretaker Manual
- AAUDE - Updated caretaker manual and send to Nebraska. They will begin to maintaining it now
- Set up update access to user metadata tables for AAUDE coordinators
  - Set up a "coordinator" account for Rebecca Carr and Judy Joy (Nebraska). Set up a user_metadata Oracle Role, and grant this role to "coordinator". Give update, insert, and select access to most of the user metadata tables to "user_metadata"
Measures

The following measures help illustrate the quality of services being provided by IS&T to its customers and the level of their utilization in the MIT community.

Web.mit.edu and www.mit.edu

The graph below represents the daily number of page requests served by the main MIT web server over the past quarter.

MIT.EDU mail system – received messages

The graph below represents the number of messages received and processed by the MIT.EDU mail system each day during the past quarter.
ALUM.MIT.EDU mail system – received messages

The graph below represents the number of messages forwarded each day as part of the MIT Alumni Associations Email Forwarding for Life service (EFL).
The graph below represents the daily number of logons by customers to the centrally managed WIN.MIT.EDU domain.

![WIN.MIT.EDU Logons per day Q2 FY 2005](chart1)

**TechTime Calendar**

The graph below represents the number of unique logons per day to the MIT TechTime calendar using any of the supported clients: Web, Native, Outlook Connector, SyncML, and PDA sync.

![Calendar Logons per day Q2 FY 2005](chart2)
Microsoft Campus Agreement – XP downloads

IS&T signed a Microsoft Campus Agreement this past quarter, which allowed Faculty, Staff and Undergraduate Students to download Windows XP (SP2) in iso or zip format from our download site. The graph below represents downloads per day by staff and students of the Windows XP operating system.

![XP Downloads per day Q2 FY 2005](image)

MIT.EDU email filtering – Spam and Viruses

The graphs below illustrate the total number of email messages filtered per day compared to the number of messages identified by the filtering process as a virus or potential spam.
Spam screened by MIT.EDU Q2 FY 2005

Viruses rejected by MIT.EDU Q2 FY 2005

* Note we only began filtering viruses as part of the MIT mail system this past September.

MITnet wireless network
The image below illustrates the number of unique wireless clients connecting to MIT’s wireless network each day.

**Wireless clients per day Q2 FY 2005**

The graph below illustrates the total number of email messages filtered per day compared to the number of messages identified by the filtering process as a virus or potential spam.

**ALUM.MIT.EDU email filtering – Spam and Viruses**
Spam screened by ALUM.MIT.EDU Q2 FY 2005

Viruses rejected by ALUM.MIT.EDU Q2 FY 2005
MITnet – wired campus

- Cases opened in Q2 FY05 ---- 65
- Cases completed in Q2 FY05 ---- 175
- Cases currently open in Q2 FY05 ---- 110

- Jacks installed in Q2 FY2005 ---- 223
- MITnet activations in Q2 FY2005 ---- 303
- Project labor hours billed in Q2 FY2005 ---- 148

*Reflects revenue numbers only (no capital).

IXOS, EDI, IPM and Clear Commerce

The measures below illustrate the utilization and availability of the infrastructure applications supported by Operations and Infrastructure Services.

<table>
<thead>
<tr>
<th>Metrics</th>
<th>IXOS</th>
<th>EDI</th>
<th>Central Print</th>
<th>Credit Card Processing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Usage</td>
<td>~240 Users 20,000 doc/month</td>
<td>11 Trading Partners</td>
<td>247655 Sheets</td>
<td>51 Active Stores 23433 transaction</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Documents: 23433 EDI 2444 FAX</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Upgrades</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Planned Outages</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Unplanned Outages</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>1</td>
</tr>
</tbody>
</table>
MIT Data Warehouse

Between October 1, 2004 & December 31, 2004
- 47,906 Total Number of sessions Between July & September
- 628 Total Number Unique Users that generated
  the above sessions between July & September
- 15,337 Total number of registered users.
- 802 Total Number of New Users added between July & September
- 631 Total Number of data views in the Data Warehouse
- 804 Total Number of base tables in the Data Warehouse
- 2,255 Total Number of Indexes in the Data Warehouse

- 486,405,071 Total Number of data records in the Data Warehouse
- 385g Total data file size

Casetracker DW cases between October 1, 2004 & December 31, 2004:
- 50 non spam cases
- 30 answered by Data Warehouse Team
- 0 unresolved/open cases.

Non-Casetracker DW cases between October 1, 2004 & December 31, 2004:
- 214 Questions not logged via warehouse-help (asked directly to our team by email
  or phone)

Total downtime between October 1, 2004 & December 31, 2004:
- 52 hours Planned - includes all weekends or Institute closing periods- -- (generally
  for backups & patches)
- 0 Unplanned
- 0 Load failures (data unavailable)
DOST – Collocation

The graph below represents the number of collocated servers currently being managed and maintained in W91 by the DOST team.
**DOST – Centralized printing**
The graph below represents the centralized printing managed and handled by the DOST team over the past fiscal year.

![DOST - Pages printed on page printers](image-url)

<table>
<thead>
<tr>
<th>Quarter</th>
<th>Pages Printed</th>
</tr>
</thead>
<tbody>
<tr>
<td>FY2004Q2</td>
<td>1,321,539</td>
</tr>
<tr>
<td>FY2004Q3</td>
<td>1,436,431</td>
</tr>
<tr>
<td>FY2004Q4</td>
<td>1,152,897</td>
</tr>
<tr>
<td>FY2005Q1</td>
<td>976,345</td>
</tr>
<tr>
<td>FY2005Q2</td>
<td>1,053,354</td>
</tr>
</tbody>
</table>
Mainframe availability
The graph below shows the availability of the MITVMA/C mainframe over the past 12 months.

MITVMA/C Availability - FY2005Q2

Last 12 months
TSM

The graphs below illustrate the utilization of the central TSM backup service both number of nodes registered with the system and volume of data being backed up.
VM-SST TSM - Data backed up

<table>
<thead>
<tr>
<th>Quarter</th>
<th>Terabytes of data</th>
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<td>FY2004Q4</td>
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<td>FY2005Q1</td>
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</tr>
<tr>
<td>FY2005Q2</td>
<td>81.28</td>
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</table>
VI. Telephony and Shared Services - Executive Summary

Telephony Services

There were several activities as part of the ongoing telephony infrastructure maintenance and improvement, including working with OIS to fix a long standing problem with splices in west campus, and investigating how to improve cell phone coverage on campus, in particular Nextel coverage (which impacts Facilities and Campus Police) and in-building coverage for Stata and Brain and Cognitive Sciences. We continued to work with OIS on traditional telephony for the new buildings, as well as assisting Broad with telephony at a temporary site.

On the services side, a major focus was completing the rollout of the new Qwest calling cards. The new Qwest contract will result in lower cost to MIT (Qwest is about $1/10th the cost of AT&T calling cards.) We also finalized talks with Intercall for audio conference services; and the NameConnector is now the default for all callers to MIT’s main switchboard, with operator backup. Ongoing operations, such as telephony moves, adds, changes continued as usual, with volumes remaining essentially flat. There was significant improvement in the ‘defect rate’ for service requests – November and December were error free.

We engaged a company, Profit Enhancement, to help with telecom cost management; and we initialized planning for telephony marketing.

On the strategic side, we formalized the ACD replacement project, making significant progress, working with CSS and other MIT departments. We also advanced the VoIP planning, working with Media Lab, and vendors.

Shared Services

In general, teams in Shared Services made progress on the goals. Confronted with a challenging timeline, the Finance Team worked with Directors and managers to build an FY06 budget proposal. The Telephone and Network Pricing Project was essentially completed; MIT senior management has the responsibility to resolve some remaining billing questions. CG conducted an employee survey – results were shared with all staff. Formal work associated with the Department of Labor Fair Labor Standards Act was initiated. The Site Teams stabilized staffing, and, in addition to their voluminous routine work, provided some logistics help for MIT’s annual Community Giving, improved building signage, and site holiday parties.
Telephony and IS&T Shared Services

Telephony

MISSION OF TELEPHONY SERVICES

Mission: Telephony’s purpose is to provide robust, reliable, cost effective, and integrated telephony services (voice, voice mail, conference calls, etc.) to the MIT campus community. Ongoing/recurring activities include maintenance, repair, and documentation of the telephone infrastructure including the MIT owned telephone switch, handling customer requests for moves, adds, changes, repairs, as well as billing questions, scheduling the audio-bridge, and providing MIT directory assistance.

Program: Provide Telephony Infrastructure

Maintain the MIT owned telephone switch and telephony infrastructure

Working with OIS to rectify some underground cable issues that have caused chronic outages on west campus; Housing and Campus Police have been kept in the communications loop. The NameConnector was made the default for all callers to MIT’s main number effective Dec 22, 2004. There were very few complaints, and those involving names/pronunciations resolved promptly. Worked with Media Lab to address their emergency power and other in building telephony issues. Worked to address power and other emergency response issues as part of Institute Emergency Operations Center activities, led by EHS. Began process of rolling out new telephony features, starting with documentation and training of CSR staff; the goal is to update web pages and provide more client information over the next 6 months. For example, clients will see enhanced Caller ID (the name of an internal caller, not just the extension.) Some of these changes will involve updates to ICE-9 software.

Engage in large Voice over IP (VoIP) project

Met with vendors and talked with others doing VoIP in environment similar to ours. More specific proposal due by 1/31/05. (Note- it appears that Media Lab’s VoIP traffic uses less than 5% of their VoIP switch.)

Implement new Automated Call Distribution (ACD) and introduce ACD service, working with Client Support Services, and other MIT groups interested in ACD

Working with a local consultant used by Harvard, MIT is now leveraging Harvard’s ACD (Interactive Intelligence) in a pilot mode. IS&T Computing Help, Admissions, Medical, and Facilities are all interested. The logistics challenges of coordinating these groups has pushed out the delivery of a specific proposal; revised target - 3/31/05.

New- Improve cell phone coverage on campus

Investigating options and getting proposals from various vendors to address the in-building issues; target is specific proposal for Brain and Cognitive Science building by 12/31/04.

New- Investigate MIT infrastructure and/or vendor relationships for MIT ‘independents’ (e.g. FSLIG, etc) - no further work done on this.
Program: Provide Telephony Customer Services

Provide telephony customer services, including orders, repairs, billing and operators
Service order errors continued to decline; there were no reported errors in November and December, despite normal service order volumes. The proposed pricing for FY06 was announced; no reaction from clients, despite the generally lower pricing. Worked with OSP and Budget Office to develop process to ensure charges are not incorrectly applied to research accounts; process includes monthly reports as well as ongoing client education. Received commitment from PaeTec to provide billing services for student phones in FY06.

Support new buildings, major renovation projects
Engaged in Brain and Cognitive Sciences bldg and Broad building; helped Broad with telephony for a temporary location; began work with MIT Press; worked with OIS to ensure the new MIT president had appropriate home and office telephony.

Provide audio bridge audio conferencing services

Program: Provide 3rd party telephony services (long distance, calling card, etc.)

Implement new carrier contracts
New Qwest calling cards became effective Oct 1 (ahead of revised due date). Transition of calling cards involved contacting all AT&T calling card holders via email to notify them of the change, and getting the Qwest cards to them (in many cases via the AO). In addition, for situations where Qwest may not be appropriate (e.g., personal use), negotiated 15% reduction in MobileSphere rates for calling card services. Web pages were set up with Qwest and MobileSphere information.

Work with 3rd party audio conferencing services to identify high quality, low cost provider
Completed negotiations with Intercall, an award-winning provider of sophisticated audio conferencing services, which will complement the MIT audio bridge services. Intercall will provide custom MIT registration pages. Communications/forms re: new service will occur during Q3.

Audit carrier invoices
In order to enhance our auditing of carrier invoices, and realize increased savings, we entered into a contract with a local firm (Profit Enhancement Services) that specializes in auditing and rectifying carrier billings. They also guarantee that the cost savings we receive will be at least equal to the cost of their contract. Between work already done by Telephony Staff and P.E.S., over $80,000 in over charges have been identified.

New – Investigate options for lower cost pricing for home connectivity – no further work done on this.
IS&T Shared Services

MISSION OF IST SHARED SERVICES

Shared Services’ purpose is to provide quality financial, site and human resources services to IS&T staff, particularly the IS&T Leadership Team and supervisors. Ongoing financial services include preparation of quarterly forecasts, monitoring and reconciling expenses. Ongoing site and administrative services include site maintenance, scheduling meetings and trips, arranging events, coordinating office moves, receptionist. Ongoing human resources services include assistance with hiring, terminations (including layoffs), employee relations, staff development, and organizational design.

Program: Provide organizational administrative services (i.e. HR, financial and administrative services) needed to keep IS&T running.

Provide accurate and timely financial services, including quarterly reporting, transactional processing, etc.

The IS&T FY06 budget request was submitted close, representing significant effort on the part of the Finance Team to engage the relevant managers. The IS&T Finance team improved their internal processes for managing quarterly forecasting. As part of an Institute/EVP initiative to improve the linkage between the HR view of staffing and the Budget Office view, the Finance Team and CG worked together on the new process for quarterly position tracking.

Provide accurate and timely HR transactional support (hiring, terminations, promotions, compensation, etc)

CG continued to be the focal point for IS&T HR process. Allison regularly provided an updated Open Positions list, as well as sending a (well received) monthly staffing update to all IS&T staff. During the quarter, over 50 positions had staffing related activity ~ 14 positions posted, and 8 posted positions were closed (an offer was accepted). The median time from posting to position closed was 64 days, up from last quarter. (HR Executive, September 2004 reported that the average time to fill positions was 48 days). There were also several waivers, vouchers/contractors. 1 person left voluntarily, for an annualized attrition rate of 1%. About 20 staff were considered for promotions and/or off-cycle salary increases. There were also miscellaneous other staffing/HR related interactions: on average, during the quarter, CG Liaisons worked with all of the managers with staffing responsibility, and about 40% of non-manager staff.

Initiated the Support Staff merit review process, including receiving training for a new MIT SAP salary review tool. Began conversations regarding philosophy/process for the upcoming Administrative staff review.

Initiated work with HR with regard to Department of Labor Fair Labor Standards Act, and the implications for a number of IS&T positions. This includes updating job descriptions for many positions.

As part of ensuring effective services, CG did an internal review of the CG web pages, including Usability testing. Some immediate changes were made in response to that analysis; other changes will be deferred pending broader IS&T website changes.
Provide helpful, effective, timely and accurate administrative services to IS&T staff;
provide building ‘landlord’ services to W91, W91 and N42
Site staff responded to over 2200 requests during the quarter (up ~5% from last quarter), including security issues; coffee/tea/water service; maintaining office supply inventory; computer disposal; facilities issues; equipment (copier, printer, fax, whiteboard, projector, phones) maintenance and repair; parking coordination; arranging meetings, including food, A/V etc.; handling deliveries, and lost and found; coordinating phone moves; vacation reporting, etc. Site staff also handled over 1200 Support Staff and student payroll transactions.

Support IS&T VP projects such as IT Service Center pricing project, determining cost of IT at MIT, programmatic budgeting, Resource Model, etc
The Finance team provided significant support to the Telephone and Network Pricing Project, responding to senior management’s request for a different view of the cost data; work on the Resource Model continued.

Support Directorate projects, such as Cable TV business model; analysis of costs/revenues, etc

Program: Improve Organizational Effectiveness

Support more effective project management in IS&T
Competency Group was a key contributor to the IST VP’s Project Methodology Project; due to other priorities, that project has slipped. An update to IST-LT and the managers was done in December, and a review with IS&T managers is planned for January.

Lead the way in promoting performance management throughout IS&T
Due to other organizational issues, including the volume of hiring, we have not rolled out the 6 Conversations methodology as expected. This work is still planned.

Facilitate creation of an excellent work environment, one where we retain the people we want to retain
Conducted an IST workplace survey, based on the Gallup 12 questions in October (about a month behind original goal). We had a gratifyingly large response rate, and the results (generally quite positive) were shared with IS&T leadership and staff in December. CG is now working internally and with interested others to develop some specific action items to further improve the environment.

Worked on the Job Title Alignment process, an effort to improve consistency in job titles across IS&T and ensure there is a clear and desirable dual career track (management as well as individual contributor). Some preliminary thinking was shared with IST-LT prior to Christmas. Work will continue during the 3rd quarter, with the goal of implementing the final recommendation by July 1, 2005.

Additional notes:
While not related to any of our goals, three members of IS&T Shared Services contributed to the Facilities/Campus Police Shared Services design activity.
## IV. Appendices

### APPENDIX A: IS&T Quarterly Financial Report Q2 FY2005

Information Services & Technology  
Quarterly Financial Report  
Fiscal Year 2005 - Second Quarter

### IS&T BASE GENERAL BUDGET

<table>
<thead>
<tr>
<th></th>
<th>Year to Date Actuals (July - Dec)</th>
<th>Remaining Projection (Jan - June)</th>
<th>Projected Year End Total</th>
<th>FY05 Annual Budget</th>
<th>Projected Year End Variance ($)</th>
<th>Projected Year End Variance (%)</th>
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<tbody>
<tr>
<td><strong>REVENUE</strong></td>
<td>($1,237)</td>
<td>($2,519)</td>
<td>($3,756)</td>
<td>($3,340)</td>
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<td>Materials &amp; Services</td>
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### TELEPHONE & NETWORK SERVICES CENTER (TNSC)

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<th>Year to Date Actuals (July - Dec)</th>
<th>Remaining Projection (Jan - June)</th>
<th>Projected Year End Total</th>
<th>FY05 Annual Budget</th>
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<td>$416</td>
<td>$417</td>
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<td><strong>NET TOTAL</strong></td>
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<td>($556)</td>
<td>($2,537)</td>
<td>($2,991)</td>
<td>($454)</td>
<td>-15%</td>
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</tbody>
</table>
# Information Services and Technology
## Financial Report by Profit Center
### Information Services & Technology
#### Quarterly Financial Report
##### Fiscal Year 2005 - Second Quarter

### IS&T BASE GENERAL BUDGET

<table>
<thead>
<tr>
<th>Area</th>
<th>Year to Date Net Actuals (July - Dec)</th>
<th>Remaining Net Projection (Jan - June)</th>
<th>Projected Year-End Net Total</th>
<th>FY 2005 Annual Net Budget</th>
<th>Projected Year-End Net Year-End Variance ($)</th>
<th>Projected Year-End Net Year-End Variance (%)</th>
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<td>$ in thousands</td>
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<td>Administrative Computing Operations &amp; Infrastructure Services</td>
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<td>$ in thousands</td>
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<td>Other (includes Special Projects)</td>
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### TELEPHONE & NETWORK SERVICES CENTER (TNSC)

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<th>Profit Center</th>
<th>Year to Date Net Actuals (July - Dec)</th>
<th>Remaining Net Projection (Jan - June)</th>
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<td>($2,990)</td>
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<tr>
<td>TNSC TOTAL</td>
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<td>($2,536)</td>
<td>($2,990)</td>
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