

July-December 2011

# Accomplishments Report - Information Services





## Information Services Accomplishments Report July – December 2011

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### MISSION

*We are a strategic asset for UMKC's missions of: Teaching and Learning, Research, Service, and Economic Development.*

### 2016 GOALS

- Infrastructure that delivers seamless, secure, reliable, anytime and anyplace user access.
- User technologies and support that enhance and facilitate Teaching and Learning, Research, Service, and Economic Development.
- Effective and efficient management of resources.
- Accurate, understandable, and accessible communication, documentation and resource use.
- Continuous improvement in services, facilities, and professional development.

### 2012 IS PROJECT LIST & POINT PERSON

- Campus New Construction/Renovation (MNL Classroom Addition, Bloch Hall Addition, Student Success Center, Oak Street Parking Structure, Pharmacy MSU Expansion) – Guggenmos/Technology Management Services
- Encryption – Reisenbichler/Support Services & Malyn/Information Security
- Expansion of wireless coverage – Schonemann/Telecomm & Networking
- ILE Classroom Lifecycle Upgrades – Guggenmos/Technology Management Services
- IPv6 Implementation – Malyn/Information Security
- IP Video Distribution – Guggenmos/Technology Management Services
- VOIP rollout – Johnston/Telecomm & Networking

### 2012 Shared Services Project List:

- Accounts Management – Goodenow/Information Access
- Coordinate IT Planning & Budgeting – Carnett/Operations & Administration
- E-Portal – Goodenow/Information Access
- Establish Enterprise Architecture – Schonemann/Networking
- Establish & Empower a SPMO – Guggenmos/Technology Management Services
- Exchange 2011 Upgrade – Schonemann/Networking
- Improve Usability and Usefulness of Solution – Goodenow/Information Access
- ITSM – BMC Remedy Deployment – Reisenbichler/Support Service
- Restructure IT Across UM System – Hines Fritts/CIO
- UM Network Architecture – Schonemann/Networking & Johnston/Networking and Telecommunications

*Details on each of the above projects can be found in the individual sections from the responsible department.*



## Support Services Goals and Objectives Update July 1, 2011 – December 31, 2011

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### *Key Initiatives*

- IT Service Management (ITSM) University-wide project.
  - Significant progress was made on the university-wide ITSM project. A business case was developed and numerous vendor presentations were made across the campuses. A recommendation was made to the CIOs and a new ITIL-aligned service management solution was purchased in December. The new solution, which will be hosted at UMKC, is intended to improve intercampus efficiencies and leverage existing investments. July 1, 2012 is the targeted go live date for the incident and problem reporting portion of the system. Additional features and functionality will be developed after all campuses have the service management system installed.
  
- Exchange 2010 Migration
  - The Exchange email migration from 2007 to 2010 was successfully completed over the holiday break at UMKC. This change brought new email functionality and features to UMKC faculty and staff. After all campuses are upgraded, a set of records retention folders will be made available in Outlook. A key benefit of this project was the increase in email quota of 15GB. Listed below are a few of the Support Services accomplishments towards this initiative:
    - Created documentation outlining new features and functionality
    - Provided targeted communication throughout the process
    - Participated in testing and feedback of new system
    - Wrote and published instructional materials detailing configuration changes for a variety of operating systems and mobile devices
    - Assisted numerous faculty and staff with questions and reconfiguration of mobile devices
  
- Mobile Technology
  - We continue to see significant growth of mobile devices on campus. These devices are changing the landscape and driving new approaches for teaching and learning. They offer new opportunities for distribution of materials, studying, note-taking, and accessing systems. Listed below are some of our accomplishments in this area:
    - Developed new informative webpages with detailed setup instructions to promote ease of use
    - Researched numerous systems on the market and met with various vendors to review solutions
    - Provided ongoing support for the iPad pilot project in the Conservatory
    - Research and testing of new devices

- Remote Labs

- Continued to promote and expand usage of the Remote Labs. New software and labs were added as follows:

- ImageNow Pre-Release testing environment
- Adobe Acrobat 9 & Adobe Acrobat X in Faculty/Staff RemoteLab
- Fourteen new apps were added to SCE's Remote Lab
- Created new, dedicated, Remote Lab for SCE students using Ansys

- Remote Labs Usage continued to expand during the past 6 months with 1,415 distinct users between 7/1/2011 and 12/31/2011, an increase of 447 users over the previous 6 months.

- Total number of Remote Lab logins per month

Month	Logins
<b>Jul-11</b>	1,084
<b>Aug-11</b>	1,315
<b>Sep-11</b>	2,797
<b>Oct-11</b>	2,924
<b>Nov-11</b>	2,609
<b>Dec-11</b>	1,826
<b>Total:</b>	<b>12,555</b>

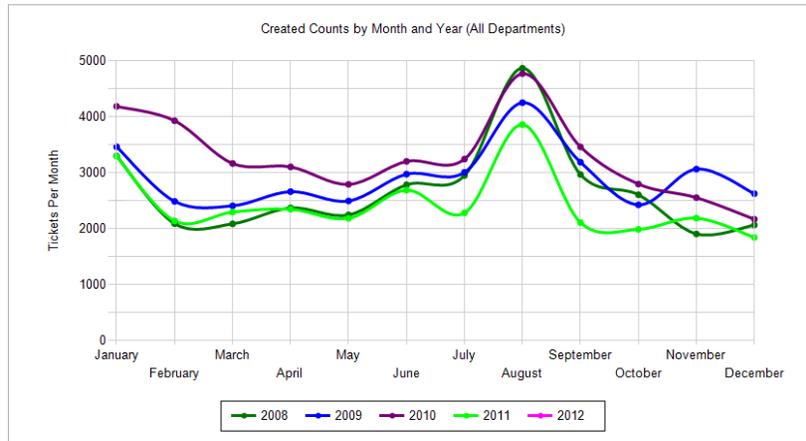
- Top 10 Applications in Remote Labs

Title	Instances
<b>MatLab R2011a</b>	1,068
<b>SPSS 19</b>	957
<b>Windows Explorer</b>	730
<b>MatLab R2010a</b>	644
<b>Minitab 16</b>	608
<b>SAS 9.2</b>	575
<b>Remote Labs File Manager</b>	512
<b>NetAnatomy.com</b>	425
<b>Internet Explorer</b>	395
<b>Adobe Photoshop CS5</b>	374

- Encryption
  - Developed procedures to enable encryption for certain secure systems and UMKC laptops
  - Worked with security officer to draft an encryption policy which is under review

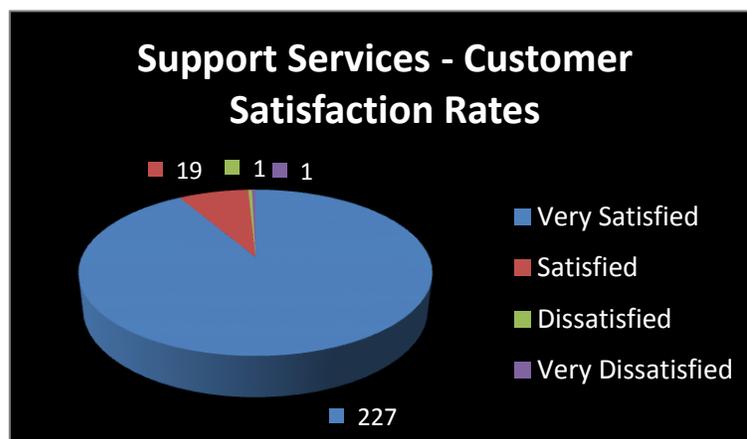
**Support Services – Customer Requests**

- Over the last five years, the support volume in Support Services has steadily increased. However, during this past period, we’ve seen the volume level off while our customers continue to grow.



The current call volume can be attributed to many factors, the most relevant at this time being:

- Implementation of new password expiration notification system and tool allowing users to change their current passwords more easily
  - Increased familiarity with Outlook Live student e-mail system
  - Minimal system outages
  - Improved wireless coverage on campus
  - Updated IS website allows customers to find solutions more easily
  - Consistent and improved change management procedures
- Customer feedback is valued and appreciated as we continually work to improve services. The following chart represents customer satisfaction data collected for the period of July 1st through December 2011.



### **Call Center Projects:**

- The Call Center responded to 11,661 support requests, resolving 8,944 or 77% of calls. The rest were escalated to appropriate next Tier responders.

Time Period	Total Number of Call Center Support Requests
Q1 & Q2 2009	12810
Q3 & Q4 2009	16564
Q1 & Q2 2010	16091
Q3 & Q4 2010	14499
Q1 & Q2 2011	14328
Q3 & Q4 2011	11661

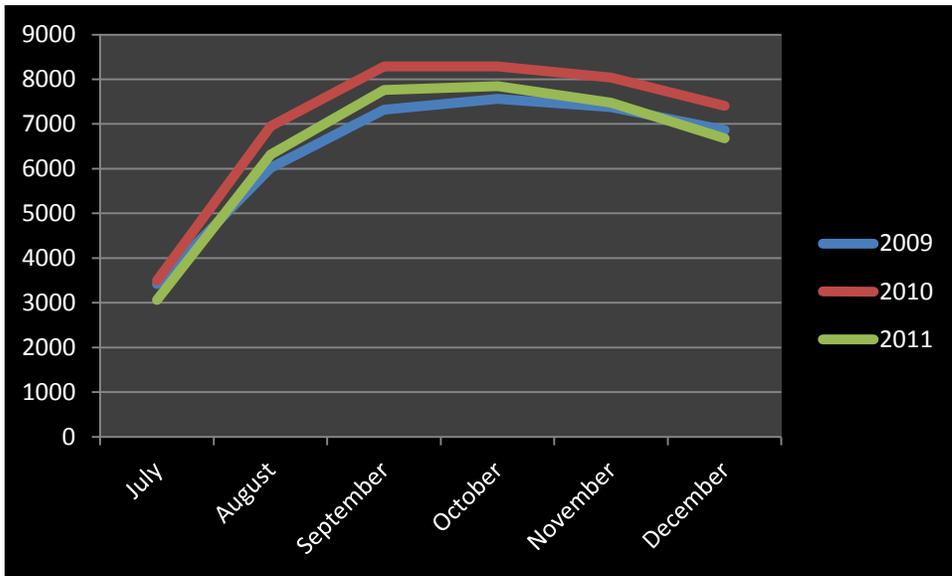
- The last few years have seen a relatively steady increase in support requests generated through our online problem report tool. This tool allows users to submit requests 24 hours a day, 7 days a week, and the requests are generally addressed during business hours. However, we are able to spot trends in off-hours, when multiple users report on problems with the same services.

Time Period	Total Number of Web Submission Requests
Q3 & Q4 2009	920
Q1 & Q2 2010	671
Q3 & Q4 2010	600
Q1 & Q2 2011	528
Q3 & Q4 2011	506

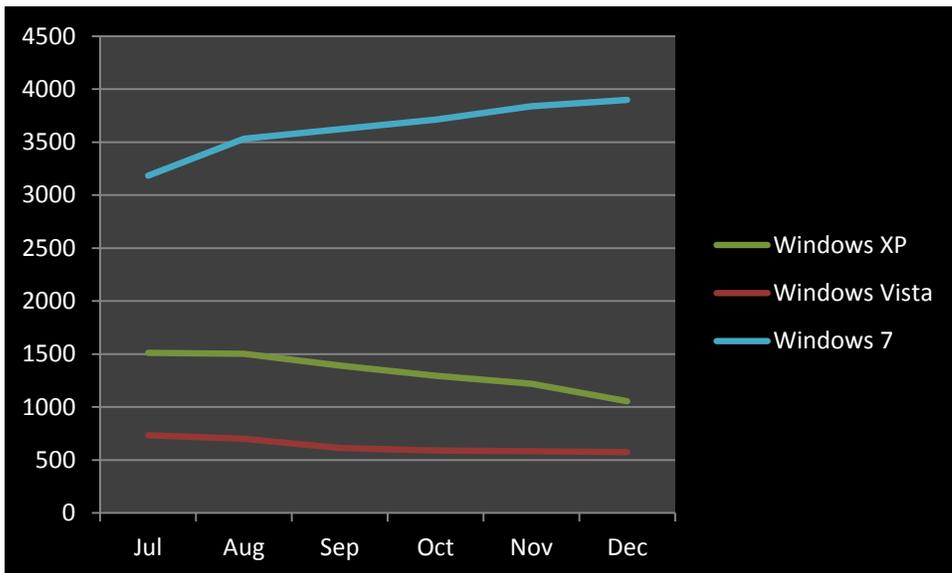
- Implemented Bomgar as a shared service with UM Columbia and UMSL campuses
- Developed communication and designed web pages for Exchange 2010 migration
- Set up 307 Guest Accounts
- Worked with Admissions, Registration and Records and various UM IT groups to address SSO account creation and maintenance issues.
- Participated in search for and review of new ITSM product
- Continued to maintain and support Remedy Action Request System for tracking support requests
- Trained one new Call Center technician and one new Desktop Support-Call Center hybrid technician (Hai Vu)

### **Desktop Support**

- Responded to and resolved **2,562** desktop support requests
- Responded to and resolved 535 student assistant Problem Reports
- Maintained operations in 8 IS Labs, 5 SCE labs, 1 Athletics lab, and 3 computer classrooms
  - 10,652 distinct individuals used these labs between 07/01/2011 and 12/31/2011



- Software deployment progress
  - Office 2010
  - 91% for IS supported customers (compared to 89% on June 31st, 2011)
  - 62% for rest of campus (compared to 43% on June 31st, 2011)
  - A total of 4,008 systems are now running Office 2010
  
- Windows 7 upgrades continue and are typically done when computers are upgraded or replaced. We have increased the number of Windows 7 clients by 714 between 07/01/2011 and 12/31/2011



- Updated Universal image to support new computer models and updated software
- Created automated procedure for installing required software for Rural Nursing Program
- Collecting feedback from students on our Thin Client lab/kiosks workstations

- Setup new TideBreak interactive classroom for School of Law. This allows students to create interactive classrooms and delivers flexible, engaging learning spaces, using 7 Mac Mini computers and 8 large format displays located throughout the classroom.
- Setup new touch screen Kiosk, with dedicated kiosk interface, in Student Union for making UMKC Payments
- Installed and configured a new 32 seat computer classroom for School of Business in Bloch 005 (Figure 3)
- Installed and configured a new 20 seat computer classroom for Psychology in Cherry 117 (Figure 1)
- Installed and configured a new 54 seat interactive learning center for Math in MNL, 4<sup>th</sup> Floor (Figure 2)
- Converted RH314 computer lab into a dedicated testing center
- Upgraded SOE computer lab with new computers, keyboards, and mice
- Upgraded SCE 462 computer lab with new computers, keyboards, mice, and monitors
- Upgraded PaperCut in the IS & SCE Computer Labs to 11.5. This upgrade introduced new WebPrint features currently utilized in the University Libraries
- Installed and configured 3 new testing computers in new ADA testing lab
- Installed 6 new printers in Oak Place, one in each computer lab
- Installed new printer in Johnson Hall computer lab
- Assisted with the installation of a very large format printer in the Student Union
- Imaged all IS/UL/SCE lab computers (700+) and all ILE computers (175+) with Windows 7 SP1 and latest version of software
- Assisted with student residence hall move in with staff on-site in both Oak Hall & Johnson Hall



Figure 1 – New Cherry St. Lab – Psychology Department



Figure 2 – Installation of 54-seat Interactive Learning Center for the Math Department in Miller Nichols Library



Figure 3 – Bloch 5 computing classroom

- Installed specialized software for Math Expo, which took place in the Fine Arts 307 computer classroom & Haag Hall 212
- Assisted several departments with computer moves as the UC renovations continue
- Started 2011-2012 WRP including updating database with new models, creating new inventories for each department on campus, and responding to many questions
- Assisted with the setup of new Alvarado ticketing system for Athletics
- Made many configuration changes to allow SCCM to function in native mode. Included running native mode readiness script against all SCCM clients
- Created new Lab/ILE software request online form
- Changed support structure for mobile phones, all support is now handled by Desktop Support
- Hired and trained new Desktop Support technician
- Worked with server team clean up and decommission imaging server
- Deployed updated ImageNow client via SCCM to all ImageNow users
- Completed Microsoft Certification Exam (MS 70-685) for desktop technician
- Created/Updated 85 SCCM packages for Labs, ILE, and campus wide use (See Appendix for specifics)
- Provided IT support around staff changes in the A&S dean's office when Wayne Vaught assumed post of interim dean.
- Conservatory of Music & Dance support
  - Welcomed the Conservatory's IT Liaison to the desktop team and assumed regular support duties for this school.
  - Applied our standard imaging and maintenance tools to Conservatory computer labs and assessed needs for additional security hardware.
- Tested and documented iPad apps for file storage and remote computer connection to both Windows and OS X computers on campus.
- Microsoft Office 2010/2011 updates – Sent automated update package for this important software update for the remainder of users in first-tier academic units in May, well in advance of planned the Exchange 2010 migration. Worked with dean's offices to ensure this was widely communicated months in advance of the rollout.
- OS X 10.7 "Lion" testing and deployment
  - Due to significant changes with both this new OS version and with Apple hardware released at the same time, it was necessary to develop new procedures around imaging and domain joining. Also worked with Apple system engineers to identify a stable AD binding scenario for our computing environment.
  - Added to standard Mac disk image extensive documentation for domain binding and other occasional setup and troubleshooting needs
  - Exploited new capability of OS X to mount DFS volumes by created shell scripts to auto-mount common user network folders.
- Effectively communicated news of a planned, widespread power outage at Flarsheim Hall and assisted with powering-down key systems in advance of the outage. As a result, the event on August 13 did not generate a significant number of support incidents.
- Welcomed new IT Liaison at the School of Education and oriented her to university IT policy and hardware, software, and support procedures.
- Partnered with Foundation Services to
  - Virtualize and surplus remaining physical servers in SCE.
  - Virtualize existing physical license servers used for departmental labs.
- Staffed dormitories during move-in days to assist students with wireless connectivity.
- Update the DeployStudio server used for Mac field imaging and diagnostics with new hardware.
- Developed new procedures around Xerox multifunction copiers.
  - Authentication will now be used for more secure communication when sending scans via e-mail.

- Detailed setup instructions developed for configuring advanced printer features on Mac clients.
- Setup new LanSchool environment in ED 34 lab.
- Provided onsite tech support and software installation services for the Math EXPO event.
- Received and reviewed 134 Workstation Replacement Program orders for Arts & Sciences, Conservatory, Education, and School of Computing & Engineering.
- Surplus PCs from computer labs and PCs and CRT monitors from SCE research labs.
  - 45 CRT monitors
  - 5 Laser printers
  - 35 PCs
- Consultation for major research projects
  - Yong Zeng- new grant-funded project requires special hardware for parallel GPU computing
  - Zach McCall – secured PC needs for working with restricted data from US Dept. of Education
- Departmental lab hardware replacements
  - GIS lab – 15 PCs and secondary monitors
  - Language Resource Center – 11 iMacs
- Began working with newly-formed Conservatory Tech Committee

### ***IS Managed Labs***

- Maintained operations in eight IS-managed general use student computer labs, twelve restricted access labs, and supplied two associated classroom/testing facilities. 10,651 people used these sites during this time:

<b>Lab Name</b>	<b>Individuals</b>
<b>Bloch School of Business 110</b>	1,859
<b>Health Sciences 3304</b>	1,160
<b>Johnson Residence Hall</b>	530
<b>Miller Nichols 2<sup>nd</sup> Floor</b>	2,864
<b>Oak Place Labs</b>	815
<b>Royall Hall 303, 304, and 314</b>	4,600
<b>School of Computing and Engineering 364</b>	508
<b>School of Computing and Engineering 460</b>	705
<b>School of Computing and Engineering 462</b>	714
<b>School of Computing and Engineering 463</b>	504
<b>School of Computing and Engineering 464</b>	881
<b>School of Education 129</b>	2,664
<b>Student Union 210</b>	3,957
<b>University Center B17</b>	210

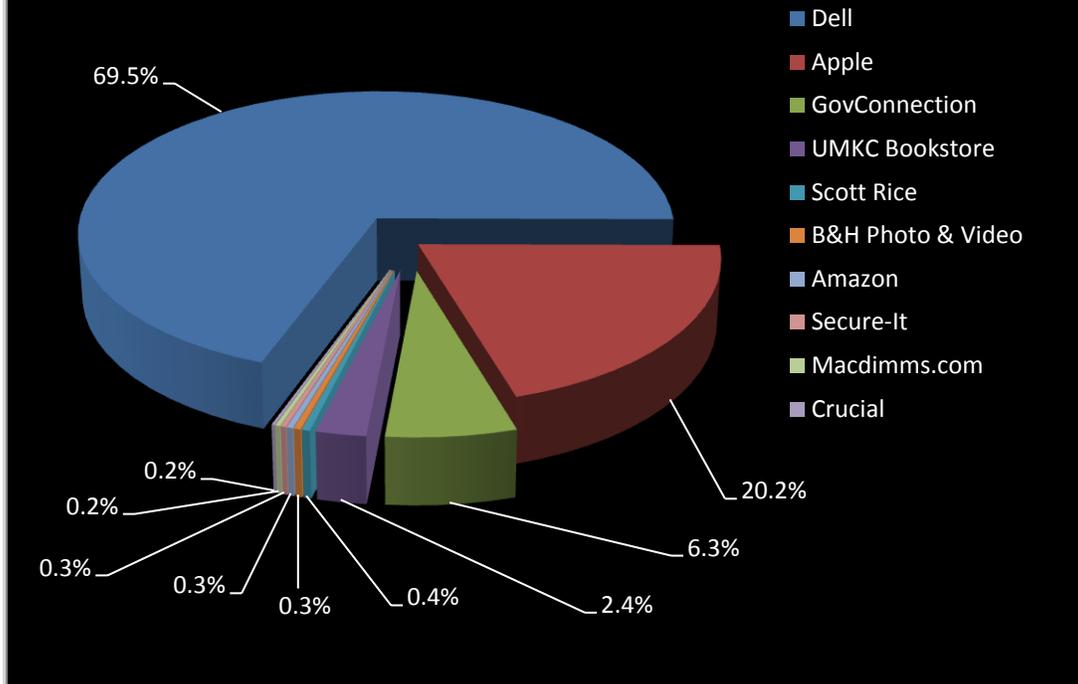
- Continued to collaborate with various schools and departments to ensure student computing needs are met.
- Worked with Bloch School of Management on new computer classroom in Bloch 005.
- Staffed Miller Nichols Library computer lab for extended hours for Fall semester finals.
- Staffed School of Computing and Engineering labs for extended hours for Fall semester midterms and finals.

- Lab environmental updates: replaced worn-out recycling bins in several sites, procured trash cans for new MNL second floor lab and a stanchion for SOE 129 lab, had floors for several sites deep-cleaned, surplused broken cabinets, tables, and chairs as needed.
- Created web site for tracking amount of use for SU 210-1 Project Room.
- Developed new Summer Intercession, Fall/Spring semester, and Winter Break lab staffing models resulting in significant cost savings. Updated back-office procedures to match new system.
- Transitioned RH 314 computer lab to dedicated computer testing facility.
- Shut down and cleared out UC B17 computer testing facility to accommodate building renovations.
- Began process of simplifying back-office procedures and documentation to improve efficiency of operations.
- Updated Lab Hours and Locations web page with campus map indicating buildings housing IS-managed general use student computer labs.
- Staffed registration sessions during three new student orientations.
- Scheduled 14 classes in Royall Hall/Health Sciences Building computer labs.
- Received over 100 applications for Student Assistant positions, interviewed 64 prospective new hires, and hired 25 new Student Assistants for IS-managed labs. Conducted 5 new hire orientations.
- Processed over 5,400 shifts and supervised over 15,300 Student Assistant man-hours. Completed reviews for 50 Student Assistants.
- Supported student printing needs by keeping supplies on hand and printers ready for use. Over 345,000 print jobs were printed in IS-managed general use student computer labs, totaling over 1,910,000 pages.

### ***UMKC IT Hardware Procurement***

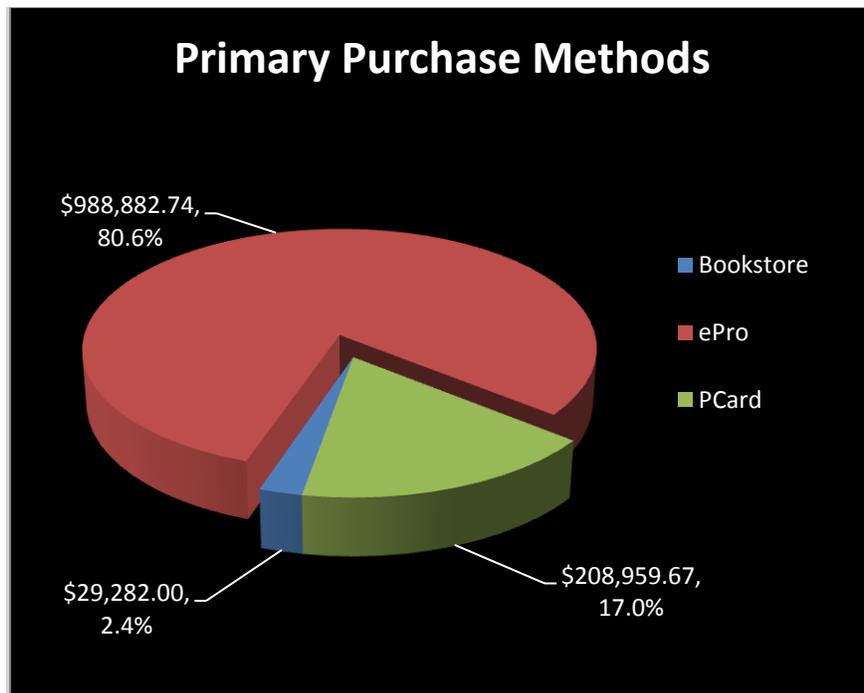
- Purchased over \$1,225,000 on IT hardware, including computers, printers, peripherals and related service warranties.
- The distribution of spending over primary vendors:
  - Dell and Apple remain the primary computer vendors, representing over 89% of the total hardware spend
  - Apple hardware purchases accounted for over 22% of the spending
    - This represents a nearly 105% increase in Apple purchases over the previous period. This is partially due to this period including the Workstation Replacement Program. However, if all WRP Apple purchases were removed from consideration, this period still saw a 75% increase in Apple hardware purchases. Therefore, the trending popularity of Mac and iOS products shows no sign of abatement

## Top Ten Hardware Vendors



Vendor	Spending	Vendor	Spending
<b>Dell</b>	\$848,097.32	B&H Photo & Video	\$3,904.59
<b>Apple</b>	\$246,202.85	Amazon	\$3,542.71
<b>GovConnection</b>	\$76,267.46	Secure-It	\$3,068.90
<b>UMKC Bookstore</b>	\$29,282.00	Macdimms.com	\$2,639.94
<b>Scott Rice</b>	\$4,742.64	Crucial	\$1,932.58

- The distribution of spending over primary purchase methods:
  - eProcurement: \$988,882.74
  - ProCard: \$208,959.67
  - UMKC Bookstore: \$29,282.00



- Workstation Replacement Program
  - Provided pre-order computer inventory analysis and projections
  - Developed hardware funding criteria
  - Worked with vendors to achieve bulk discounts and create numerous standard and specialized quotes from Dell and Apple
  - Placed orders for over \$587,000 for computers and monitors in WRP 2012
  - Communicated with IT Liaisons and fiscal officers about hardware models, ordering, funding eligibility and delivery
  - Divisional order breakdown:
    - Workstation Replacement Program configuration breakdown:

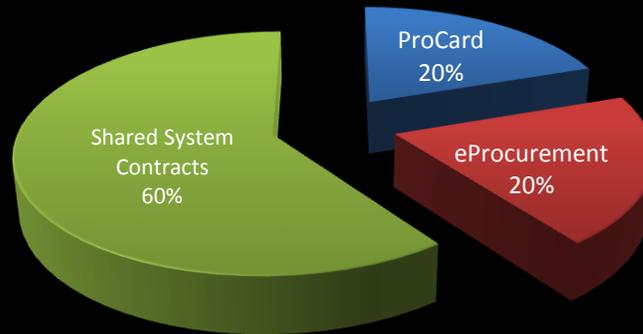
WRP Configurations	Orders
Apple 21.5" iMac	21
Apple 13" MacBook Pro	7
Dell Latitude E6320	89
Dell Optiplex 790 - 22" Monitor	286
Dell Optiplex 790 - Dual 22" Monitors	31
Dell Optiplex 790 - No Monitor	235
Special Orders	7

- Mobile device procurement
  - Became the institutional point-of-contact for wireless procurement processes, including day-to-day activities as, website creation to document devices and plans, cross-training and integration of Desktop Support as primary support provider
  - Processed 63 new line and device upgrade requests for cell phones and data-only devices and services (hotspots, air cards, 3G tablet activations).
  - Processed numerous requests for device swaps and wireless plan/features changes
  - Began work on information gathering and processes for large-scale cell phone transitions for Campus Facilities and Athletics
  
- Other notable activities:
  - Provided IT item selection and configuration consultation for 70 distinct departments in response to a myriad of different request scenarios
  - Reviewed and provided IT approval for 79 eProcurement orders input by other departments
  - Worked with fiscal officers to resolve ten eProcurement “budget errors”
  - Processed authorized returns for five hardware items
  - Developed and strengthened business relationships with a number of primary vendor contacts, most notably Apple, Sprint, Dell and GovConnection
  - Created, published and updated IS Hardware Procurement web pages while working on new, improved versions
  - Communicated with IT Liaison community regarding changes to hardware procurement, standards and product availability

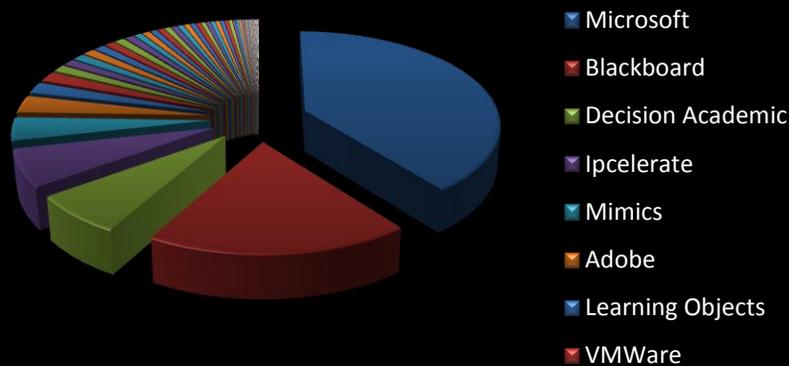
### ***UMKC IS Software Procurement***

- Placed software orders and renewals totaling \$556,358.20
- Placed software orders for various departments on ProCard (\$109,981.96)
- Placed software orders and renewals through eProcurement (\$111,622.80)
  - Catalog & Curriculum Navigator - \$38,000.00
  - IPcelerate - \$35,821.81
  - Mimics Materialise - \$22,100.00
  - SafeConnect - \$5,800.00
  - VMWare VSphere Upgrades - \$8,625.96
  - Miscellaneous - \$1,275.03
- Processed UMKC’s portion of shared System contracts (\$334,753.44)
  - Apple Server Support
  - Blackboard
  - ESRI Mathematica
  - Microsoft Premier Support
  - Microsoft Campus Agreement
  - Minitab
- Renewed annual licenses for Bomgar, Catalog and Curriculum Navigator, Learning Objects Campus Pack, ListServ, PaperCut
- Renewed departmental licenses for ERDAS, MathCAD, Matlab

## Software Purchase Methods July - December 2011



## Software Purchases by Vendor (60 unique vendors)



- Continued cross-training efforts to promote departmental efficiencies
- Made good progress with the software database. All new titles are entered directly into the database for improved record keeping
- Worked with Apple to refine new purchasing procedures for purchasing and installing iOS apps
- Decreased licensing expense for servers saving approximately \$11,000 over the last year primarily with Microsoft server renewals. This is a direct result of server consolidation and virtualization in IS, A&S, SCE and elsewhere.
- Continued to work with other campuses to increase efficiencies by consolidating license agreements and ordering in bulk wherever possible.
- Represented IS on Campus Sustainability Committee and made significant progress with PC vendor to discontinue use of non-recyclable CPU packing material

### *Additional Support Services initiatives*

- Worked to ensure technical staff had necessary training to effectively meet changing roles and new technology. Training classes completed during this six-month period included:
  - ITIL Foundations class and certification
  - SharePoint user class
  - Windows 7
  - SCCM
  - Apple seminars
  - Dell certification training
  - Attended Educause Online Sessions
  - HR leadership training
  
- Worked with Registrar to review and update student email policy
- Participated in UM IT Strategic Planning Committee and selected to serve on Use and Usability Project Committee
- Chaired and organized numerous IT Liaison meetings on campus. Made arrangements for numerous guest speakers and provided ongoing IT project updates. Posted meeting notes and provided regular communication.
- Continued to serve on numerous campus-wide committees as listed below:
  - UM Standards committee
  - Volume Purchase Agreement committee
  - Pathway Leads committee
  - Xerox Steering committee
  - Sustainability committee
  - ITSM Committee
  
- Served as the university-wide single point of contact for the Dell warranty parts and reimbursement program.
- Worked with Student with Disabilities office to plan and coordinate office move and computing equipment needs in temporary quarters
- Worked with new SCE Operations Committee Chair to smoothly transition responsibilities, review procedures and address software and hardware needs
- Worked with Bloch administration throughout several months to plan, assist with design and purchase furniture for new labs. Installed new student computing lab facility in Bloch 5 in time for start of fall semester.
- Worked through many staffing changes and several recruitment and selection processes during the past six months. Replaced several key positions that were promoted or re-assigned during the recent IS reorganization. We also had one person retire, one person leave and rolled up two new support positions from other units during this period.
- Consulted with Biological Sciences on student computing lab management and lifecycle funding
- Worked with Athletics department to discuss IT policies and procedures
- Worked with academic units at Bloch to discuss use of mobile device in curriculum
- Updated Service Level Agreement with Toy and Miniature Museum to reflect current arrangements
- Expanded support team responsibilities to consolidate procurement and support of mobile devices
- Completed numerous reports on UMKC computing assets and updated life-cycle funding reports

- SCCM Packages created/updated by Desktop Support

A&S - ArcGIS 10	ICF Adobe Web Players	SAS 9.3
A&S - AutoCAD 2012	ICF Adobe Web Players	SCCM NativeModeCheck
A&S - DIY3D	ICF AMD Catalyst 10.12 x86	SCE - Alice 2.2
A&S - ERDAS Imagine 2010	ICF Athletics Lab Cleanup	SCE - Android SDK r12
A&S - ERDAS Tutorials	ICF Blackboard IM 4.0.0-C	SCE - AutoCAD 2012
A&S - GeoDa	ICF CareScope 5.1	SCE - Eclipse 3.7 CDT Plugin 8.0.0
A&S - GIS Lab Folder	ICF DataStudio 1.9.8r9	SCE - Eclipse Classic 3.7
A&S - Google Earth	ICF ISO Quality Testing	SCE - Eclipse Classic 3.7 Andoid Plugin
A&S - Google Sketchup	ICF Markstrat Team 5.1.0.5	SCE - FLTK 1.1.10 VS2010SP1
A&S - SGeMS	ICF OSD Win7 Driver Package	SCE - Jcreator 5.00.008
A&S - URL Backgrounds	ICF OSD Win7 x64 Driver Package	SCE - Migrate KC-SCE-Class
Adobe Acrobat 10.1.0 Update	ICF ProSeries 2010 (Taxes)	SCE - Risa3D 9.1
Adobe Acrobat 10.1.1 Update	ICF QuickTime 7.7	SCE - SAP2000 15.0.0
Adobe Acrobat 8 (Latest Version)	ICF Shell Customization	SCE - Second Life 3.2.1.244864
Adobe Acrobat 9 (Latest Version)	ICF Stellarium 0.11.0	SCE - SolidWorks 2011 SP4 x64
Adobe Air 2.7.1	ICF Vegas Movie Studio HD Platinum 11	SCE - SynaptiCAD 16.01v
Adobe CS4 Production Premium	ICF ZoomText 9.19.1	Silverlight 4.0.60531
Adobe CS5.5 Web Premium	ILE Logitech WebCam	SOE - DigiQuilt
Adobe Premier CS4 32	Java 1.6u27	SOE - Geogebra 3.2.47.0
Adobe Reader 10.1.0	Java 1.6u29	SPSS 18
Adobe Reader 10.1.1	LanSchool 7.5	SPSS 18 2010_2011 License Update
Adobe Reader X	Maple 12	SPSS 18 2011_2012 License Update
Adobe Web Players	Maple 13	SPSS 19.0.0.1
Adobe Web Players	Maple 14	TeamViewerQS 4
Amos 18	Maple 15	UL - DJVU 6.1.4 r25349
Camtasia Studio 7.1.0	Mozilla Firefox 6.0	UL - Scorch 6.2 b88
CompuTrace Central IS	Mozilla Firefox 6.0.1	Wimba Pronto
DS - Mipacs Delete Patient	Mozilla Firefox 7.0	
Google Chrome 12.2.59002	OpenOffice.org3.3	



## IS Network Security Goals and Objectives Update July 1, 2011 – December 31, 2011

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- Training one staff on Windows Security Analyst course
- Upgraded LanGuard patch scanner
- Worked with Law School on Time Matters
- Significant work related to Exchange 2010 migration project
- Assisted with the configuration guidance for the secure VM cluster
- Initial work on IPv6 deployment
- Deployment of IPsec to all Windows 7, Vista and Windows 2008 machines
- Initial work on new off-campus transparent VPN technology
- Worked on deploying and troubleshooting off-campus Domain Controllers
- Completed centralized logging of Windows servers
- Work on Athletics wireless ticket scanners
- Significant VMware cluster rebuilds due to SAN work

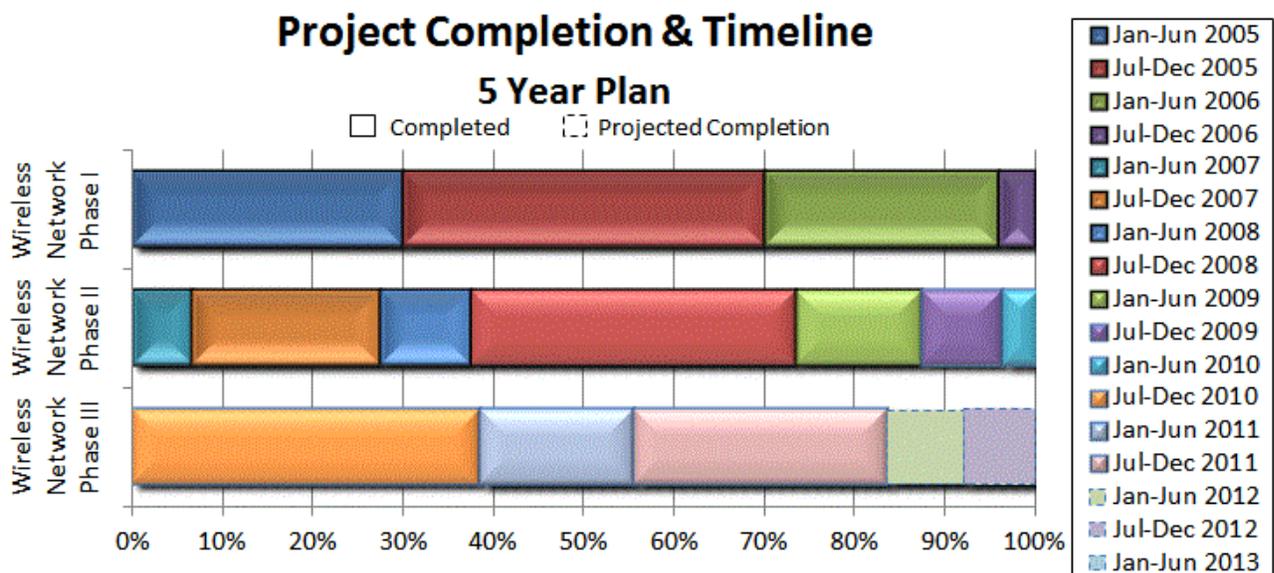
## Infrastructure Services (Networking & Telecommunications) Goals and Objectives Update July – December 2011

### IS PROJECT - Expand Wireless Systems (Goals 1, 2, 3)

With 412 wireless access points installed campus wide we are now expanding wireless coverage in campus buildings to cover classrooms, offices and other usable spaces. In most buildings this would be 80% to 90% of the floor space allowing for seamless network access as you move throughout a building. We are also upgrading access points to the 802.11n standard and currently have achieved that on 41% of the units. See the appendix for current buildings with wireless coverage.

#### Critical Issues

- The new wireless standard 802.11N, was approved in September of 2009, requires replacing every access point on campus with a new unit. New units may be more costly, especially when they first hit the market.
- The new 802.11N antennas take additional inline power so a new IEEE 802.3 inline power standard is out as well. This requires replacing at least some blades in network switches with new blades that support the new power standard. This process was completed over the last year.
- Projections based on Networking & Telecommunications budget at 2007 or higher levels with no additional projects or funding requirements that would use departmental hard dollars.
- Projections based on 2007 or higher staff levels. This project would stop or substantially slow down with staff cuts or vacant staff positions for extended periods of time.



**IS PROJECT - INFRASTRUCTURE IMPROVEMENT**

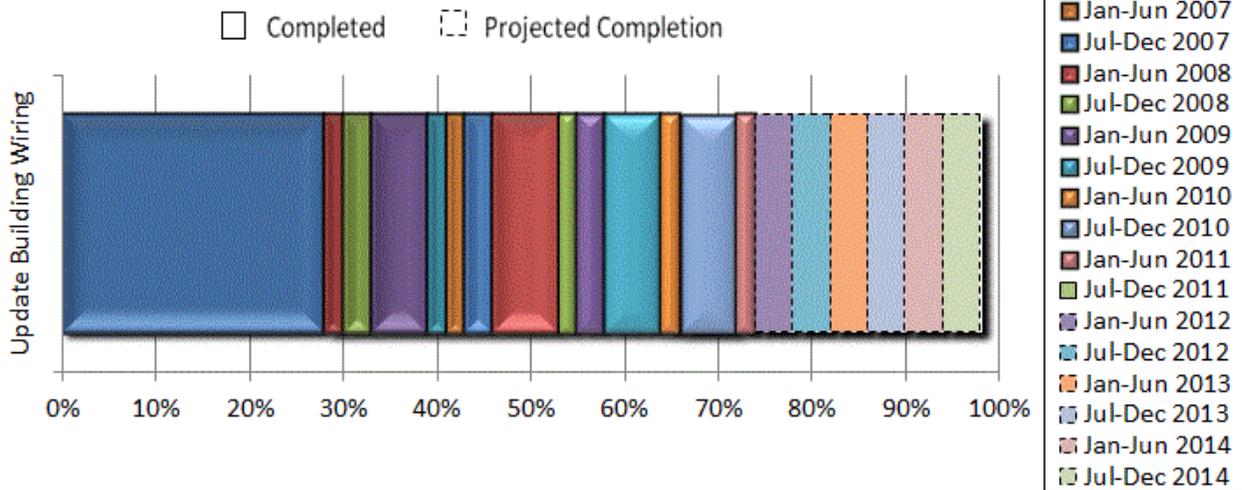
**Upgrade Building Wiring Infrastructure (Goals 1, 3)**

We have completed infrastructure upgrades in the Bloch School of Business, Health Sciences building, Union Station, Biological Sciences, Spencer Chemistry, Fine Arts, School of Education, Durwood Soccer Stadium, Johnson Hall, Pershing Place Bld., Student Union, Law School, Miller Nichols Library and are currently working on the Medical School. We hope to complete the Medical School upgrade to Category 6 cable over the next year. See Appendix for status chart by building.

**Critical Issues**

- New cable standards like Category 7 that will support 10 gigabit connections are projected to be out in 2012. New standards have increased the cable size and made cable stiffer. These new cables require larger conduit sizes and longer installation times, which increase cost.
- Copper cable prices have more than doubled in the last 5 years driving up the cost of many of the supplies we use on a daily basis. If this inflation rate continues cost of materials could cause us to slow or stop some installations due to insufficient budget.
- Projections based on Networking & Telecommunications budget at 2007 or higher levels with no additional projects or funding requirements that would use departmental hard dollars.
- Projections based on 2007 or higher staff levels. This project would stop or substantially slow down with staff cuts or vacant staff positions for extended periods of time.

**Project Completion & Timeline  
5 Year Plan**



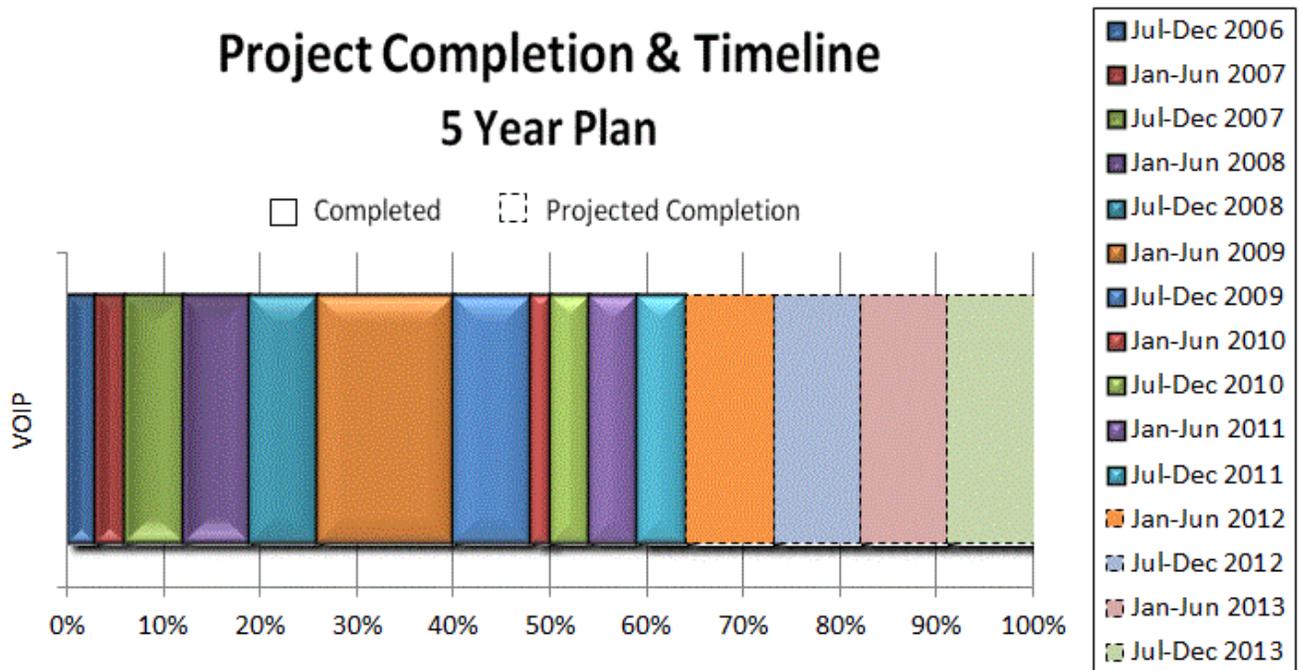
**IS PROJECT - VoIP Roll Out (Goals 1, 2, 3)**

We started rolling out voice over IP phones first to all of Information Services and then in the new Health Sciences building. We have now replaced phones in Manheim Hall, Royall Hall, Haag Hall, Flarsheim Hall, Fine Arts, Old Maintenance, Nursing School, Spencer Chemistry, Biological Sciences, Dental School, Oak Place, Oak Street, Johnson Hall, Administrative Center, Law School, Student Union, Bloch School, Epperson House, Durwood Soccer Complex, Performing Arts Center, School of Education, University Center, Newcomb Hall, Cockefair Hall, Katz Bld., General Services Bld., Heating/Cooling Plant, Diastole, Hospital Hill Parking Structure, Swinney Recreation Center, Cherry Street, Toy and Miniature Museum, Miller Nichols Library and Grant Hall. Each person who currently has a campus phone will receive a new IP phone similar in functionality at no charge to the department. See <http://www.umkc.edu/is/nt/umkc-phone.asp> for more information on phones. See Appendix for buildings with VoIP phones deployed.

*Critical Issues*

- This project is dependent on both the campus network and each buildings cable plant infrastructure. IP phones require inline power for greatest functionality which requires a Category 5 or higher cable plant. This project would slow if the campus infrastructure project is delayed.
- The campus PBX is 30 years old and a catastrophic failure would require an immediate cutover to IP phones.
- Projections based on Networking & Telecommunications budget at 2007 or higher levels with no additional projects or funding requirements that would use departmental hard dollars.
- Projections based on 2007 or higher staff levels. This project would stop or substantially slow down with staff cuts or vacant staff positions for extended periods of time.

## Project Completion & Timeline 5 Year Plan

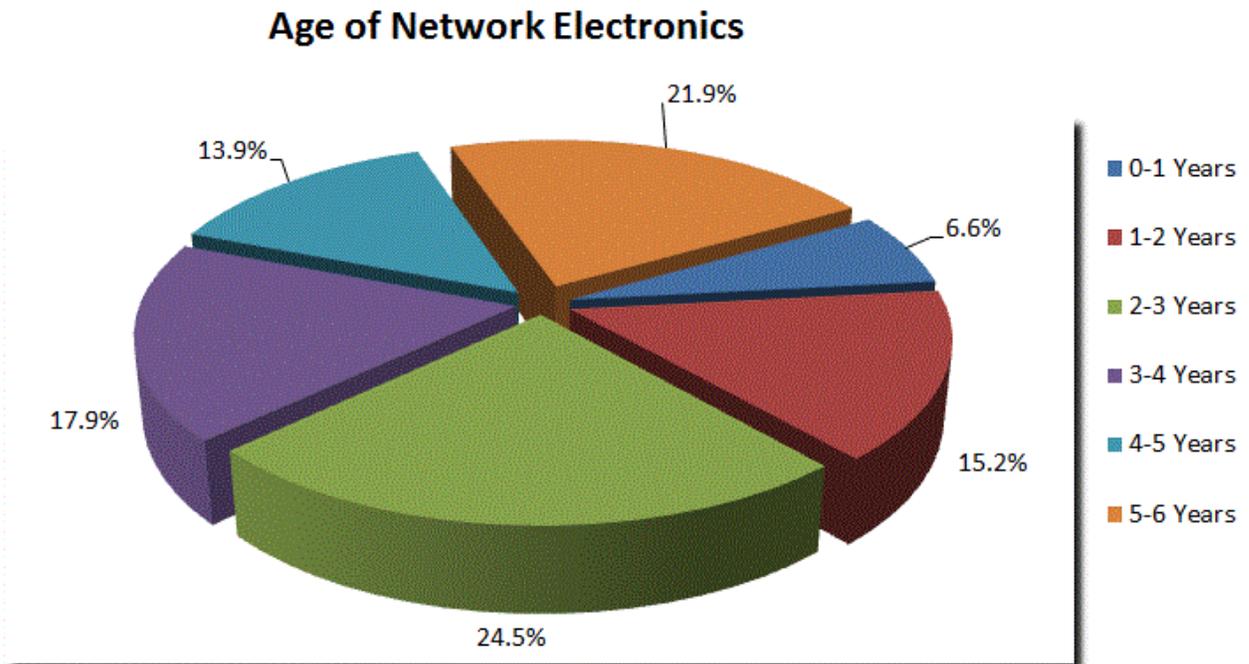


### Network Core and Building Electronics Lifecycle (Goals 1, 2, 3)

UMKCnet has over 300 routers, switches and other electronic devices that make it functional. These systems are replaced on a 5 to 6 year lifecycle plan to keep the network reliable, robust and maintainable with current hardware and software contracts. See Appendix for building by building electronics lifecycle status.

#### Critical Issues

- The campus keeps growing and expanding without adding additional resources to support the voice and data networks. Just in the last few years 8 new buildings have been built and 3 other additional locations added to the network.
- Network equipment connectivity is dependent on the campus fiber optic cable plant. This plant is aging and some of the older fiber may have to be replaced to support newer speeds (like 10 Gigabit Ethernet).
- VoIP systems are dependent on the campus network and infrastructure for reliable operation. If funding is insufficient to keep UMKCnet equipment current both voice and data systems could fail.
- Projections based on Networking & Telecommunications budget at 2007 or higher levels with no additional projects or funding requirements that would use departmental hard dollars.
- Projections based on 2007 or higher staff levels. This project would stop or substantially slow down with staff cuts or vacant staff positions for extended periods of time.



### ***Network new buildings (Goals 1, 3)***

UMKC is currently building a new Cherry Street Parking Garage with office space, expanding the Miller Nichols Library with additional classroom space, remodeling the University Center and is planning a major addition to the Bloch School of Business. These projects require extensive planning, engineering and staff time both before and during the buildings construction. Bringing voice and data systems online when a building is completed requires the efforts of the entire Networking & Telecommunications department.

#### ***Critical Issues***

- Additional buildings with additional voice and data equipment put a greater demand on campus resources. Specific to Information Services, network usage both wired and wireless, the load on the Internet connections which cost hard dollars to increase, Call Center support, trouble tickets and onsite visits to repair and trouble shoot issues, network security, etc. These projects include cost for cable plant and electronics but no additional resources for staff or ongoing maintenance of infrastructure.
- Projections based on Networking & Telecommunications budget at 2007 or higher levels with no additional projects or funding requirements that would use departmental hard dollars.
- Projections based on 2007 or higher staff levels. Building projects could not make deadlines for building openings with staff cuts or vacant staff positions for extended periods of time.

### ***Shared Services - Network Architecture Engagement (Goals 1, 2, 3)***

UMKC is actively participating in the system-wide Shared Services Initiative. This initiative includes projects that span multiple campuses designed to cut costs, share resources and even staff when possible. Specific to IS -Infrastructure Services is the Network Architecture Engagement Project. The goal of this project is to enhance the Universities intercampus data network in support of shared services. Cisco has agreed to provide free consulting services in support of this project. A Network Architecture Engagement Committee has been formed with representatives from each campus, the Hospital and MOREnet to work with Cisco to move this project forward.

#### ***Critical Issues***

- Trying to get agreement across all groups on objectives and outcomes of the committee.
- Funds and staffing to implement the committee's recommendations

Individual Infrastructure Services accomplishments this period:

- Installed wired and wireless network for the National GENI Conference demonstration session hosted at UMKC.
- Repaired fiber cut at 4825 Troost.
- The complete voice and data infrastructure installed in ILC math lab in the Miller Nichols Library.
- Internet1 link speed increased from 300M to 320M.
- Hosted Belden certification cable installation class at UMKC.
- Networking & Telecommunication staff attend over 220 hours of training during this reporting period.
- Upgraded the operating systems on over 300 network devices with the latest security patches and updates.
- Staff member attending Research Computing Day at MS&T.
- Moved Unity unified voice mail system to Exchange 2010 servers.
- Hosted IP phone training classes for several departments.
- Staff member served as the campus building liaison representative.
- Completed over 325 moves, adds and changes on voice jacks, data jacks and phones.
- Responded to, solved and closed 240 trouble tickets recorded in Remedy.
- Installed 196 Voice over IP phones.
- Two Staff members served on the Inter Campus Network Committee.
- Russell Friend passed Belden installer certification course.
- Processed over 2.6 million calls through voice systems.
- Staff member served on the campus recycle program committee.
- Upgraded the operating system on all wireless access points (412) with the latest patches and updates.
- Upgraded Lenel security server software.
- Jim Schonemann served on and was the Chair of the U-wide Network Architecture committee.
- Marked University buried cable plant locations as required by law for Missouri DIG-RITE over 340 times during this reporting period.
- Additional wireless access points were added to the Miller Nichols Library, Dental School, Administrative Center and School of Education.



# Wi-Fi Areas

University of Missouri-Kansas City  
Hospital Hill Campus

- Wireless Buildings
- ⊗ Wireless Zones



# UMKC Information Infrastructure Status





## Information Access Goals and Objectives Update July – December 2011

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Efforts of the Information Access Division during the period July through December 2011 were notable for the improvements made in measurements of customer response times, despite a steady increase in requests for service. All divisions had singular and combined successes.

**Instructional Technologies (ITS)** Usage of ITS related tools including Blackboard, Moodle, Tegrity and Wimba increased. ITS upgraded to Blackboard version 9.1 and prepared for the 2012 move to Moodle 2.0. Equella is a Digital Asset Management product which will be rolled out to the campus in early 2012.

**Internal Applications (IA)** Internal Applications worked on large projects for a number of colleges and schools and performed semi-annual account cleanup processes. The highlight project was the development of the uFirst application used by the student affairs and academics unit as a tool for increasing retention rates at UMKC.

**Academic Enhancement (AE)** AE completed a number of prominent video events highlighted by the Conservatory of Music's performance at the new Kauffman Performing Arts Center. The group also engaged in new technology targeted for streaming audio/video to mobile devices using multiple presentation formats (HTML5, Flash media, Windows media, etc.). AE continues to provide academic support for instructors providing supplemental material for courses.

**Foundation Services (FS)** FS provides secure, professionally managed data centers to meet the growing information technology (IT) needs of academic and administrative units at UMKC. The majority of servers on campus have been virtualized. FS has been able to reduce physical hardware and reduce the number of data centers on campus saving tens of thousands of dollars in electrical and heating/cooling costs.

**ITS Highlights**  
**Projects, Research and Development, and Personnel**

**Instructional Design**

**ePortfolios:**

- Planning for fifth year of ePortfolios
- Foliotek enrollment from the period of 7/1/11 through 12/31/11:
  - Continued successful usage by the History and Dental Hygiene departments
  - 158 active School of Dentistry accounts
  - 168 active History Department accounts (see program breakdown below)
- School of Pharmacy is beginning its planning for a Fall 2012 portfolio implementation for all of their students. Students entering the program in Fall 2012 will receive Foliotek accounts. In Fall 2013, those students will get renewals and the new entering students will begin with Foliotek so eventually, every Pharmacy student will be enrolled in Foliotek for the duration of their program.

Arts and Sciences	
Program	Number of Active Students as of 12/31/2011
<b>History Majors</b>	168
Program	Number of Active Students as of 12/31/2011
<b>Basic Prep</b>	118
<b>Degree Completion</b>	40

**Instructional Design**

- The UMKC Instructional Design group has focused on offering training sessions in best practices related to online courses. ID works with individual departments to incorporate assessment, goals, and best practices to provide a sound structure for online learning. ID is also certifying online courses for quality under supervision from the Provost office. ID is offering certification of online instructors who have the opportunity to experience an online course from the perspective of a student while studying techniques to communicate effectively with this type of learner.

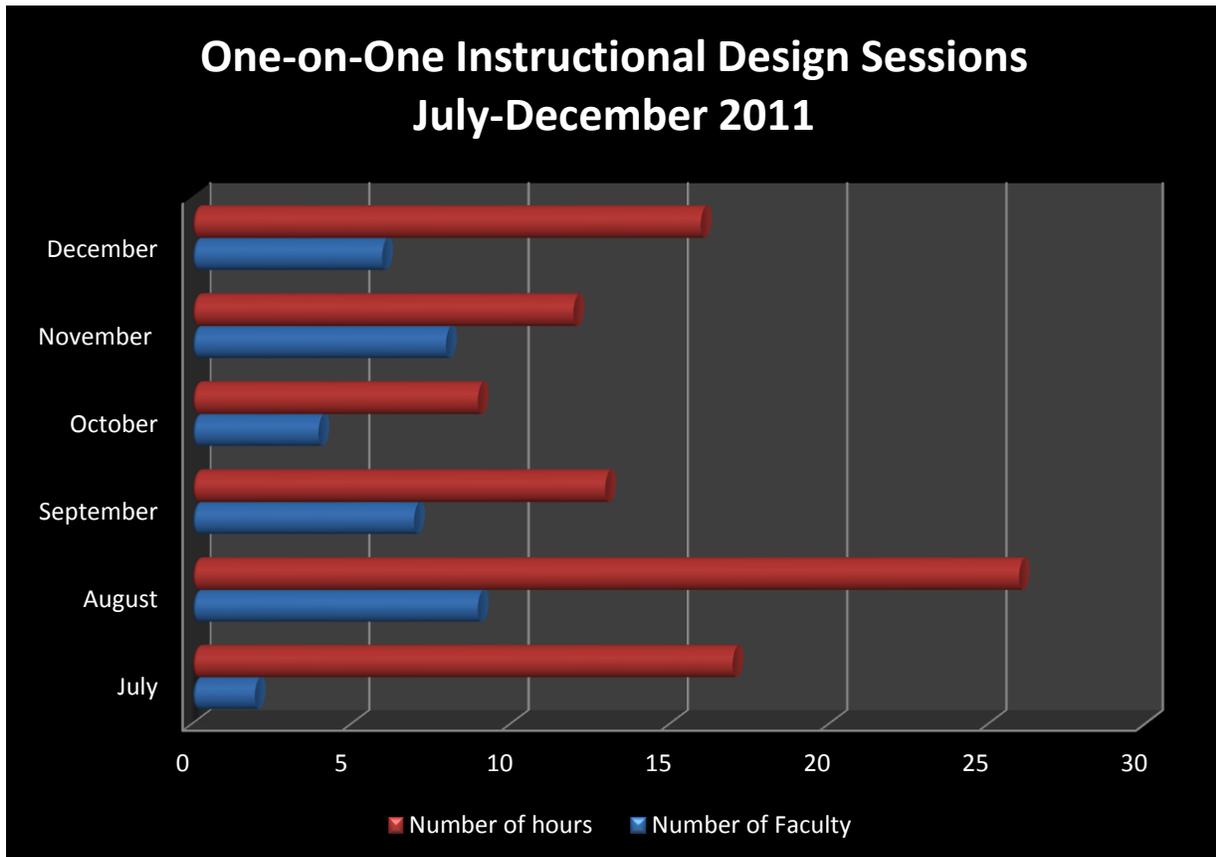
**Course Certifications:**

A total of 3 courses were certified between 7/1/2011 and 12/31/2011

Program	Course Number	Course Name	Faculty	Instruct. Designer	Date Certified
<b>BLA - Expanded</b>	Com Studies 308	Introduction to Communication Theory	Jean DuFresne	Molly Mead	10/27/2011
<b>Ed.S. in District Level Administration</b>	EDUL 5575	Administrative Internship	Rob Leachman	Molly Mead	10/4/2011
<b>Ed.S. in District Level Administration</b>	EDCI 5591	Curriculum and Instruction in the 21st Century	Dianne Smith	Molly Mead	7/5/2011

**Faculty Workshops:**

- Three online certification courses were completed between July and December with 30 instructors obtaining certification
- A new workshop was designed to assist faculty in developing online courses so that they meet the UMKC Online Course Design Standards. This workshop series, entitled “Build Your Online Course” debuted in July 2011. A total of 11 faculty members took this course (offered twice) between July and December 2011.
- A workshop entitled *Using Rubrics to Make Assessment More Efficient* was developed in response to the introduction of the rubric tool in Blackboard. This two hour, hands-on workshop was designed to give a broad overview of the structure and purpose of rubrics as well as the fundamentals of developing and using them in Blackboard. A total of 18 faculty attended the Rubrics workshop during the Fall 2011 semester.
- A total of 42 one-on-one sessions with 36 UMKC faculty were held to assist faculty as they created their online courses. Total combined time for all of these sessions was 93 hours (see chart below for number of faculty and hours per month spent on this activity).



### ***Blackboard Help Center***

- Phone calls, e-mails and tickets were handled in a timely manner according to the university's policies.
- General reviews from users were positive and satisfactory.
- Developed training material for both internal training and online faculty/students.
- Increased support for Moodle, Blackboard-integrated applications at tier 1 and 2 level, including Tegrity, Wimba and Turnitin.
- Started to use Live Chat support tool, which allowed us to extend 9 evening support hours per week. Tier 1 and 2 staffs also use it during normal hours and have received positive feedbacks.

### ***Blackboard Usage Data***

Total FS2011 courses: 7,789 (3.3% increase from last semester)

FS2011 courses with discussion boards: 353 (61.2% increase from last semester)

Total number of SP2011 forums: 2,284 (59.8% increase from last semester)

Total FS2011 discussion board posts: 94,319 (7.5% increase from last semester)

Participating students: 4,176 (14.0% increase from last semester)

Participating non-students: 244 (7.5% increase from last semester)

### *Support Issues by User Category*

Compared to the first six months of 2011, the total number of ITS-related tickets increased by 13%. This increase is largely due to an influx of new students at the beginning of fall semester and the correspondingly increased number of student support calls. Additionally, the ITS staff made a change in recording incoming support phone calls (on average 10-20 per day). Phone calls which can be answered by tier one staff immediately are not recorded in remedy which reduces the number of calls below by hundreds of support issues per month.

Support Issues by User Category		
Category	Count	Percentage of Total
Faculty	755	37.75%
GRA/Work Study	23	1.15%
Staff	305	15.25%
Student	894	44.70%
Other	23	1.15%
<b>Total</b>	<b>2000</b>	<b>100.00%</b>

### *Support Issues by Application*

Although the number of Blackboard-related issues as a percentage of total issues dropped slightly compared to 2011:RP1, Blackboard continued to account for the vast majority of user contacts. The category "Other" includes such disparate applications as FTP clients, email software, and webpage editors.

Support Issues by Application		
Application	Count	Percentage of Total
Blackboard Collaborate	1	0.05%
Blackboard	1715	85.75%
Campus Pack	23	1.15%
Clickers	4	0.20%
Digital Media	20	1.00%
Learning Objects	6	0.30%
Listserver	48	2.40%
Moodle	22	1.10%
Pathway	8	0.40%
Respondus	6	0.30%
SharePoint	12	0.60%
Tegrity	45	2.25%
Turnitin	16	0.80%
Wimba	33	1.65%
Other	41	2.05%
<b>Total</b>	<b>2000</b>	<b>100.00%</b>

While the majority of faculty and staff continue to approach ITS directly when they have teaching and learning technology issues, a significant number of issues continue to come in via the Call Center.

### *Support Issues by Origin*

Support Issues by Origin		
Origin	Count	Percentage of Total
<b>Direct ITS Contact</b>	1348	67.40%
<b>Chat</b>	154	
<b>Email</b>	844	
<b>In Person</b>	6	
<b>Phone</b>	344	
<b>Desktop Support</b>	5	0.25%
<b>Support Services</b>	588	29.40%
<b>Web Form</b>	59	2.95%
<b>Total</b>	<b>2000</b>	<b>100.00%</b>

However, a more detailed look at the manner in which different categories of university users report instructional technologies issues shows that faculty and staff are far more likely to go directly to Instructional Technologies for assistance. Students' calls, on the other hand, tend to go through the Call Center in larger numbers. While formal policy (as well as the support instructions given on the Blackboard dashboard) directs students to approach the Call Center as their first line of support, often experience -- or their instructor -- has taught them to contact ITS directly. Thus, over half of student contacts skip the Call Center entirely when reporting instructional technology-related issues.

Support Issues By Origin and User Type		
User Category	Number	Percentage
<b>Faculty</b>	755	
<b>DS</b>	1	0.13%
<b>ITS</b>	616	81.48%
<b>SS</b>	125	16.53%
<b>Web Form</b>	13	1.72%
<b>Staff</b>	305	
<b>DS</b>	3	0.98%
<b>ITS</b>	241	79.02%
<b>SS</b>	58	19.02%
<b>Web Form</b>	3	0.98%
<b>Students</b>	894	
<b>DS</b>	1	0.11%
<b>ITS</b>	476	53.24%
<b>SS</b>	380	42.51%
<b>Web Form</b>	37	4.14%

### *Support Issues by Resolution*

ITS continues to be responsible for the resolution of the majority of instructional technology-related issues reported by campus users.

Support Issues by Resolution		
Closing Department	Count	Percentage of Total
Central Systems	4	0.20%
Instructional Technologies	1851	92.55%
Support Services	145	7.25%
<b>Total</b>	<b>2000</b>	<b>100.00%</b>

### *Support Issues by University Division*

A college, department, or division was reported in fewer than half of ITS-related tickets. The remainders are generally students, community members, or new faculty/staff whose personal information is not yet available via the ticketing system.

The College of Arts & Sciences, The Schools of Dentistry, Nursing, Education, and Pharmacy, and various non-academic departments continue to be the heaviest users of ITS services.

Support Issues by University Division		
Division	Count	Percentage of Total
Administrative Depts.	107	10.96%
Arts & Sciences	291	29.82%
Bloch School of Business	62	6.35%
Conservatory	22	2.25%
Libraries	8	0.82%
School of Biological Sciences	26	2.66%
School of Engineering/Computer Science	34	3.48%
School of Graduate Studies	4	0.41%
School of Dentistry	84	8.61%
School of Education	70	7.17%
School of Law	5	0.51%
School of Medicine	81	8.30%
School of Nursing	109	11.17%
School of Pharmacy	73	7.48%
<b>Total</b>	<b>976</b>	<b>100.00%</b>

eINSTRUCTION 01/11--06/11		
INSTRUCTOR	# Students	# Classes
Benevides	311	1
Geisbrecht	185	1
Gounev	193	1
Honigberg	111	1
Lee	91	1
Lindholm	68	1
Marte	41	1
Price	110	1
Singh	74	1
Stoddard	116	1
Vaught	218	1
<b>GRAND TOTAL</b>	<b>1,259</b>	<b>11</b>
PERIOD	# Students	# Classes
01/11 – 06/11	1,518	11
08/10 - 12/10	1,259	8
<b>% Change</b>	<b>17.06%</b>	<b>27.27%</b>

WIMBA VOICE	08/10-12/10	01/11-6/11
Presentations	7	4
Board	36	93
Podcaster	10	5
Email	44	212
Announcements	92	497
<b>GRAND TOTAL</b>	<b>189</b>	<b>811</b>
<b>% Change</b>		<b>76.7%</b>
<b>WIMBA CLASSROOM</b>		
PERIOD	Rooms	
08/10 -12/10	663	
01/11 – 06/11	4414	
<b>% Change</b>	<b>84.98%</b>	
<b>WIMBA PRONTO</b>		
PERIOD	Users	Courses
08/10 - 12/10	1,051	19,663
01/11—06/11	22,327	30,476
<b>% Change</b>	<b>95.29%</b>	<b>35.48%</b>

CAMPUS PACK TRENDS	01/11 -	06/11 -
Courses	19,437	29,391
PLS	103	9,360
Communities	397	655
<b>GRAND TOTAL</b>	<b>19,937</b>	<b>39,406</b>
<b>% Increase</b>		<b>49.41%</b>

- Began a Wimba Review with instructor volunteers (ongoing)
- Held four Wimba workshops
- Provided one-on-one Wimba training for eight Instructors
- Set up use of Wimba classroom outside of Blackboard for IHD and STEM
- Provided Wimba troubleshooting to twenty-five instructors
- Provided CPS troubleshooting for twenty instructors and disabled Blackboard access
- Implemented an Ad Hoc committee to determine the best clicker system for UMKC
- Coordinated Turning Technologies training for four pilot instructors
- Provided two training sessions for instructors adopting Turning Technologies for Summer
- Set up pilot of Turning Technologies Responseware
- Created user support documentation for Turning Technologies software
- Updated user support documentation to reflect changes in to Campus Pack
- Held three Campus Pack seminars

### *IS Goals Supported*

- User technologies and support that enhance and facilitate Teaching and Learning, Research, Service, and Economic Development
- Continuous improvement in services, facilities, and professional development

Listserv Usage				
Term	Lists	Subscribers	Postings	Emails Sent (millions)
SP 2011	414	230,934	14,800	4,566,001

### *Maestro*

- Active accounts: 16
- Tracking Events: 233,241
- Directly distributed Recipients: 681,957

### *Moodle*

- Active course sites plus organizations: 30

### *SharePoint*

- UMKC has 304 sites running for faculty, staff and research purposes.
- Total unique users: 1927

Tegrity						
Recording viewed	Course sites	Recording created	Podcast downloads	MP3 downloads	M4V downloads	Session downloads
482,654	5778	2754	759	386,271	394	413

## Foundation Services Accomplishments

### *Server Security Audit*

In accordance with a UM System-wide security audit, Foundation Services reported on the status of 24 attributes (as specified by our security team) on 109 centrally managed servers. This data has been compiled and provided to our security team. This project is complete.

### *Equella*

The Equella (digital repository) has been setup and installed on the UMKC campus. This application is nearing production; at present systems administrators and content managers are acquiring training on the Equella system. This project is still in progress. Notable milestones include:

- Setup of application server (including initial configuration of Equella software and user administration).
- Setup of database server (including Oracle database installation and configuration).

### *Veeam Backup Pilot*

Foundation Services is investigating backup options that allow for remote virtual machine backups by software that is hardware agnostic. Hardware agnostic backup software allows for more flexibility and allows for differing production and backup storage hardware (saving money). Veeam backup software was chosen and a pilot is currently in process. Notable milestones include:

- Acquired licenses for largest production clusters and procured/provisioned two new physical backup servers.
- Reorganized our physical storage datastores and vCenter virtual machine folder hierarchies in order to maximize backup efficiency (deduplication) and effectiveness (target quiesced backups for Windows servers).
- Upgraded the virtual machine versions on all virtual servers to version 7 (~30 virtual server upgrades total). This is a prerequisite by Veeam to take advantage of change block tracking (more efficient than full backups).
- Currently backing up large portions of our Newcomb Hall cluster (with a targeted retention of 14 days; double our current VM image-level backup retention).

### ***Secure Cluster Initiative***

Foundation Services worked closely with Networking and Security & Research to build a cluster specifically for hosting virtual machines protected by physical security devices. This project is still in progress (as we continue to virtualize candidates for the Secure Cluster). Notable milestones include:

- Configuration of new host servers.
- Documented the process of performing physical-to-virtual (P2V) conversions behind security appliances.
- Migrated or newly provisioned 4 virtual machines in the Secure Cluster.

### ***Shibboleth***

Foundation Services began evaluation of Shibboleth for federated single sign-on for web applications. At present we are working on partnering with Columbia. This project is still in progress. Notable milestones include:

- Installation and initial configuration of multiple Identity Provider and Service Provider roles (including the acquisition of custom certificates and a custom login portal page).
- Integration with Active Directory based security groups (including recursive group enumeration).
- The Shibbolization/configuration of example ColdFusion, ASP, and ASP.NET web applications.
- The Shibbolization/configuration of multiple production web applications.

### ***Surplus Initiative***

Due to the combined result of our initiative to virtualize physical servers and the replacement of aging hardware, Foundation Services has been working with Procurement to surplus over 100 physical servers recently removed from production. At present 61 servers have been processed and provided to Procurement. This project is still in progress. Notable milestones include:

- Over 300 hard drives were erased to Department of Defense standards.
- A custom database was created to track future surplus activities.
- Multiple reports were created (for both internal and Procurement use).

### ***Server Virtualizations***

Foundation Services continues to target candidates for server virtualization. While the campus as a whole is about 70% virtualized, Foundation Services is closer to 85%. Candidates for virtualization are becoming harder to find (with our current infrastructure). Most notably 3 domain controllers and two servers residing behind physical security devices were virtualized during this period.

### ***Dental School Data Center Project***

Foundation Services is working with the Dental School to move all of their physical servers into a new virtual cluster built at the Dental School (and maintained by Foundation Services). This project is still in progress. Notable milestones include:

- The setup and configuration of a new storage area network and host servers.
- Ten virtual servers have been provisioned by Foundation Services and Dental School system administrators are working on migrating content (from physical servers).

### ***Cockefair Hall Data Center Decommission***

The Cockefair Hall data center was decommissioned and eligible servers were virtualized and/or migrated to one of our primary data centers. This project is still in progress (but near completion). Notable milestones include:

- Virtualized and/or migrated 12 physical servers.
- Migrated multiple web applications to new shared hosting resources.
- Built a massive/new research virtual server (over 20 custom applications and 64 GB of allocated memory).
- The surplus of large quantities of outdated or unneeded server hardware and racks.

### ***Flarsheim Hall Data Center Decommission***

The Flarsheim Hall data center was decommissioned and eligible servers were virtualized and migrated to one of our primary data centers. This project is complete. Notable milestones include:

- Virtualized and/or migrated 6 physical servers.
- Created new NIS and Linux licensing servers.
- Migrated multiple faculty web pages to new shared hosting resources.

### ***Systems Monitoring (Bunyanesque)***

We continue to enhance our systems monitoring infrastructure. Notable milestones include:

- *37 more servers are now being monitored.*
- *41 more jobs to existing servers were added.*
- *Added all Law School servers (along with a custom tab for Liaison monitored servers).*
- *Custom service jobs are now setup for all production database servers.*
- *Migrated the scanning server to new dedicated hardware (outside of the production clusters).*
- *A new custom job for monitoring DNS on campus was created. All domain controllers are now being monitored for DNS outages.*
- *Created a new scanning server/service specifically designed to notify us if the primary systems monitoring server goes down (this server resides in an opposing data center).*
- *Added new tab for Security & Research servers. Properly categorized all Security & Research servers into this tab. Setup notifications for Security & Research team.*
- *Reorganized entire layout and added considerably more server information/metadata.*

### ***NetBotz***

Multiple improvements have been made to our Netbotz (surveillance camera) system. This project is complete. Notable milestones include:

- The addition of over 10 TB of new storage (30 TB total). As a result, retention and resolution have been increased.
- Cameras were split into 3 separate (virtual) servers. This was done to increase stability.

## **Miscellaneous**

Additional notable achievements for Foundation Services:

- Foundation Services remedied and closed 677 Remedy tickets. Average ticket times for all priority classes (standard, urgent, critical) have been lowered.
- Provisioned approximately 70 new virtual servers.
- Worked with Networking to migrate production servers off of aging Cisco 4948 switches (migrated 40 production servers).
- Physically relocated both home drive servers (the Q: drive) from the NH datacenter to the AC datacenter (to aid in DR planning).

## **Internal Applications Accomplishments**

### **Database Server Design, Implementation & Administration:**

#### **Oracle**

- Set up a new Oracle application server (KC-ISIA-ORA1). Also worked with Foundation Services to set up Avamar backups for this machine. The new server was setup to separate high user activity schemas from residing on the same machine.
- Worked with Foundation Services on the Equella project - This involved installing Oracle 11g on the server, creating an ASM instance to handle I/O distributions, configuring tnsnames and the listener on the server. Also set up a new database for Equella.
- Performed disaster recovery exercises on the following Oracle servers - KCORA4, KC-ISIA-ORA1, KC-ISSRV-KCORA3
- Migrated all the databases from KC-CSRV-ORA3 (The old SCE server) to the new dedicated SCE Oracle server (KC-ISSRV-KCORA3) and locked all accounts on the old server.
- Negotiated a generic account for us to use when connecting to UMDW database. In the past all our applications depended on an account tied to a specific programmer, making password resets difficult if the individual was out of the office. We now have a generic account name tied to our office.
- Instituted a set of daily and weekly tasks in relation to all our Oracle instances.

#### **MySQL**

- Assumed DBA responsibilities for MySQL.
- Created several new MySQL databases.
- Worked with Foundation Services to consolidate our MySQL instances.

#### **MSSQL**

- Assumed DBA responsibilities for the following MS SQL database servers from Foundation Services:
  - KCSQL5
  - KC-WEBSQL1
  - KC-ISSRV-MSSQL1
  - KC-CSRV-MSSQL1
- Performed disaster recovery exercises on all of the above servers.
- Began process of collecting and updating database owner information for all of the above mentioned servers. This is now stored in a up-to-date spreadsheet on our end.
- Migrated all of the databases from the aging KC-WEBSQL1 server.

### ***Software Design and Development:***

- Performed troubleshooting and maintenance for the Addressing Services application.
- Made various customizations to the Bloch School's voting application.
- Made enhancements to Admissions and SSO Letters creation site.
- Modified our Distribution List population scripts to include certain connection checking code.
- Performed an XSS audit on our various web applications.
- Deployed three new mobile apps in the Android market - UMKC, UMKC BUS and Swinney Rec.
- Deployed two new mobile apps in the iOS app store - UMKC BUS and Swinney Rec.
- Performed maintenance on the MACs application used by the campus to create Telecomm work orders and long distance billing statements.
- Developed an Appointment Request form with file upload for the Writing Center.
- Developed and deployed two versions of the student alert system - UFirst.
- Developed an event management prototype for the School of Law.
- Developed and deployed changes to the Conservatory Supplemental application for admissions.
- Developed an email survey for the Institutional Research Office.
- Developed a patient doctor scheduler and procedure logger application for the School of Dentistry.
- Made enhancements to the Law Scholarship Application.
- Complete A&S Survey PDFs.
- Made modifications to the FGSC conference site.
- Updated the A&S FS 2011 survey site.
- Developed and deployed a SSO Management application.
- Developed and deployed the new Communiversity website.
- Developed an ecommerce site for the Women's Center 40th Anniversary Gala.
- Made modifications to the New Letters Online subscription site.
- Made modifications to the SCE CE Online Registration site.
- Developed a registration site for the KC Stem Alliance.
- Made modifications to the IS T-Shirt ordering site.
- Made modifications to the UMKC Advancement site.
- Developed a new ecommerce site for IA Instructional Design.
- Set up the 2012 Printable Class schedule site.
- Made modifications to the UMKC Home page marketing tile backend site.
- Developed an ecommerce site for the Law School Midwest Innocence Network Conference.
- Made enhancements to the Student Kiosk website.
- Made enhancements to the Conservatory site.
- Made enhancements to the Diversity, Access & Equity website.
- Developed an eLearning Tracker application for IA Instructional Design.
- Developed a classroom scheduler to support test scheduling in the IS Testing Center.

### ***Software Administration:***

- Set up multiple distribution lists.
- Continued administration of the UMKC calendar service.
- Supported Ali Haider, the new ITS Tegrity administrator in resolving various Tegrity issues, creating software guides etc.
- Deployed approximately 198 videos on the Windows Media Server and 185 videos on the Flash Media Server.
- Performed site creation and administration for the following WordPress instances:
  - Info.umkc.edu
  - Infodev.umkc.edu
  - Stuorgs.umkc.edu

### **Documentation/Version Control:**

- Update our process for storing connection information - All of this is now stored in centralized KeePass databases.
- Created infrastructure diagrams for a variety of our applications. These documents outline the various resources (database servers) an application connects to. Completed this for:
  - Snapshot
  - Blackboard
  - IRAPORA
  - Moodle
  - Special Accounts
- Implemented Subversion as our version control tool.
- Have begun using OneNote as a means of sharing process tips and insights within our team.

### **Scanning Services:**

Scanning services provided during this period include:

- Tests: 711
- Surveys: 20
- Evaluations: 26,753

### **Miscellaneous:**

- Gave a One-Note presentation to the Division of Student Affairs.
- Gave a jQuery presentation to the Web Liaisons Group.
- AD and Exchange account maintenance

### **CAMPUS PACK (WIKIS, BLOGS, PODCASTS, AND PERSONAL LEARNING SPACE)**

Overall Usage Trends 07/11-12/11	July	August	September	October	November	December
<b>Content in Courses</b>	31,158	32,583 (+4%)	34,313 (+5%)	37,176 (+8%)	38,662 (+3%)	39,533 (+2%)
<b>Content in PLS</b>	10,291	13,844 (+34%)	17,335 (+25%)	18,716 (+7%)	19,091 (+2%)	19,677 (+3%)
<b>Content in Communities</b>	695	1,334 (+91%)	1,721 (+29%)	1,867 (+8%)	1,872	2,126 (+13%)

### **Support Issues by Software**

Program	Number
<b>CampusPack</b>	36
<b>Clickers</b>	50
<b>Wimba</b>	21

Overall Usage Trends 01/11-06/11	January	February	March	April	May	June
<b>Content in Courses</b>	19,437	22,332 (+14%)	24,056 (+7%)	26,534 (+10%)	27,860 (+4%)	29,391 (+5%)
<b>Content in PLS</b>	103	154 (+49%)	5,120 (+3224%)	6,050 (+18%)	7,160 (+18%)	9,360 (+30%)
<b>Content in Communities</b>	397	433 (+9%)	488 (+12%)	509 (+4%)	517 (+1%)	655 (+26%)

WIMBA VOICE			
Period	1/11-6/11	7/11-12/11	GROWTH
<b>Presentations</b>	4	4	0
<b>Board</b>	93	114	22.6%
<b>Podcaster</b>	5	4	-20%
<b>Email</b>	212	259	26.9%
<b>Announcements</b>	497	550	10.7%
<b>GRAND TOTAL</b>	811	931	
<b>% Overall Growth</b>			<b>14.8%</b>

WIMBA CLASSROOM			
Period	01/11-06/11	07/11-12/11	GROWTH
<b>Rooms</b>	4414	8000	<b>81.24%</b>

BLACKBOARD IM (WIMBA PRONTO)			
Period	01/11-06/11	07/11-12/11	GROWTH
<b>USERS</b>	22,327	23,105	3.48%
<b>COURSES</b>	30,476	32,313	6.30%

### ***TURNING TECHNOLOGIES (Clickers)***

26 Instructors currently using the NXT clickers  
 9 Instructors using Mobile Learning (ResponseWare)  
 1512 students registered in Blackboard

- Arranged for 3 Pre-conference workshops for Clickers and a Distinguished Lecturer and oversaw them
- Attended 3 day Bb Collaborate Conference and Cohort training
- Coordinated Cohort team participation in Bb Collaborate
- Trained ITS staff on Campus Pack use
- Licensed ResponseWare for Clickers
- Coordinated UM Blackboard Collaborate Conference
- Coordinated Wimba Review Team evaluation of other software



## Technology Management Services (TMS) Accomplishments Report July 2011 – December 2011

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### ***SHARED SERVICES PROJECT- Establish & Empower a Strategic Project Management Office***

We are working on a new UMIT strategy to establish & empower a Strategic Project Management Office (SPMO). The SPMO consists of five primary initiatives. These initiatives focus on the development of service and project management and strategy. Though this initiative is specific to the SPMO, we feel the resulting plans/process will be leveraged for all Strategic initiatives to create a transparent UMIT environment.

1. Execute implementation and communicate strategy to promote transparency and stakeholder participation
2. Expand proposed SPMO to include campus impact & integration
3. Develop and implement a model for distributed collaboration and leadership of projects.
4. Facilitate strategy definition and initiative prioritization
5. Develop project portfolio prioritization approach

This strategy will ensure efficient use of university resources, and visible due diligence. It benefits administration by providing visibility of fiscal responsibility to all constituents and the tangible results of completed projects. It will play a critical role in developing the UMIT team as a single team. Lastly, it will ensure that the University receives the best value on its investments for both IT and Non-IT investments.

### ***IS PROJECT - IP Video Distribution System***

We are still in the early phases of design for an IP Video Distribution System for the UMKC campus. The goal is to equip UMKC with a video-over-IP digital media system. This system will improve the University's ability to communicate through signage displays, televisions, and desktop computers.

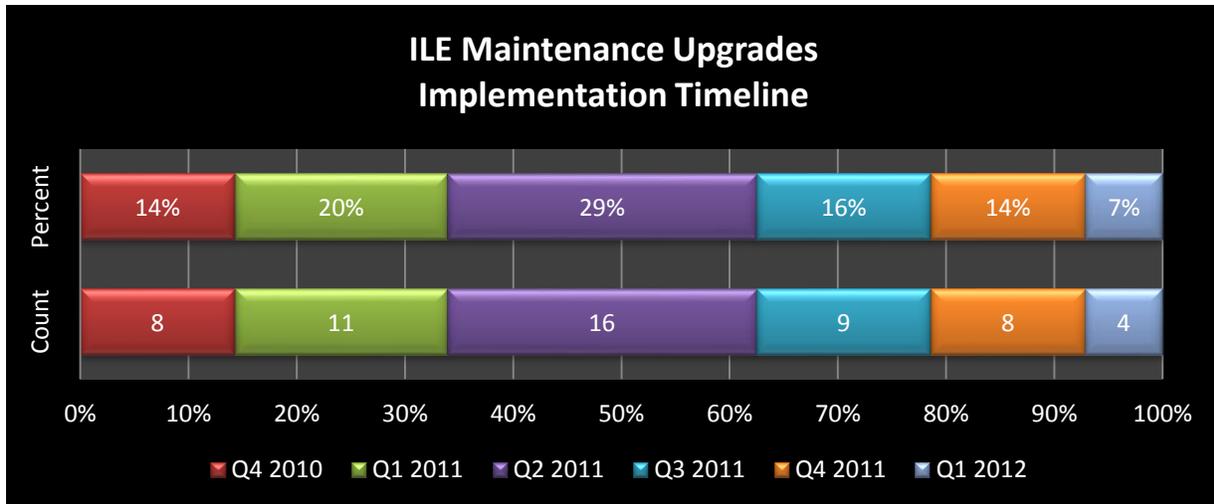
During this review period, we have made progress on system designs to accommodate IP streaming hardware in new auditoriums and active learning classrooms for the MNL classroom Addition and Bloch Hall. This technology would allow users to stream events from one space into any space on campus with the push of a button. This design feature had been identified as "required" by the planning committees for both projects as it allows for maximizing the classroom and meeting spaces to accommodate large events as needed.

We have also been working with design consultants to identify options for a small IPTV system to service the new Bloch Hall. If we end up moving forward with this system, it would have the capacity to service other areas on campus.

### IS PROJECT - ILE Classroom Lifecycle Upgrades

During this review period we have completed 17 additional ILE classroom lifecycle upgrades. We are 93% complete with this project and well ahead of the scheduled completion date of May 30<sup>th</sup>, 2012. Two conference rooms have been removed from the project to be completed as separate upgrades.

Our partnerships with fellow UMKC departments have played a critical role in keeping this project on schedule. We work closely with the Registrar's office to coordinate access and limited classroom location moves during the day to prevent working nights and weekends. We also work closely with Networking and Telecommunications to configure and add each room to a virtual network for remote control and remote adjustment of critical components. We appreciate the ongoing support from the Registrar's office and fellow IT departments.



### Continued Professional development for staff

This review period falls during our busiest semester for projects for the Classroom Technology Services team and our Video Services team also suffered from a labor shortage. Both groups made good progress towards their goals.

- All technical Staff are working on the Certified Technology Specialist (CTS) tracks through InfoComm. A majority of the technicians have completed the first phase and are preparing to start phase 2.
- Ken Burke and Caleb Zenitsky (AV Technicians) attending a professional video monitor calibration class
- Donald Fuller (CTS Programmer) became certified as an Intermediate Crestron Programmer (Level 2)
- Jamie Rinehart (System Designer) became certified in Crestron Digital Media Designer, installer, and engineer.
- Jamie Rinehart (System Designer) Started AMX Essentials Programming program
- Scott Duncan (Systems Designer) is scheduled to attend the International Consumer Electronics Show in early 2012 for R&D as part of a project with the School of Pharmacy to expand their distance education program to Springfield.
- Developed user manuals, quick checklists, troubleshooting sections, video instructions, and how-to documents on complex components of our integrated ITV environments.
- Created new project "Lead Technician" roles to provide developmental opportunities for AV technicians

***Provide IT Project Management Services and IT/AV system design services for campus new construction/renovation***

We have been heavily involved in the design and planning process for the MNL Classroom Addition, Bloch Hall Addition, Student Success Center, Oak Street Parking Structure, and Pharmacy MSU Expansion projects. All of these projects include complex IT, AV and computing systems that will ultimately be supported by IT. As we move forward, we will continue to work on system and package design, locking in infrastructure requirements and identifying project schedule tasks and durations to be included in the general contractors schedules.

***Provide advanced technical expertise and services to UMKC academic units, and UMKC departments***

We have worked with several academic units and departments to design, install, and in most cases, provide ongoing support for several complex AV and ILE systems. During this review period, we have completed seven large projects valued at ~\$308,000. We currently have six AV projects valued at ~\$380,000 being implemented and eleven additional AV projects in the design phase valued at over \$3 million (See tables below for detail).

**Completed Projects**

Project	Project Details	Est. Lifecycle Cost
<b>Bloch School 101</b>	Full ILE Classroom	\$39,008.26
<b>Bloch School 4 &amp; 5</b>	(2) Modified Hybrid ILE Classrooms	\$11,718.58
<b>Cherry Hall ILE</b>	(2) ILE Hybrid Classrooms (1) Partial AV System	\$18,530.30
<b>Law Library Renovations</b>	Full ILE Classroom Collaboration Displays 2x2 Video Wall	\$189,523.35
<b>SCE Lab ILE</b>	(1) ILE Hybrid	\$9,654.15
<b>GH 222 Upgrades</b>	Custom ILE Upgrades	\$1,500.00
<b>ILC Math Emporium</b>	Full AV System and Video Distribution Lab	\$37,807.00
<b>Total</b>		<b>\$307,741.64</b>

### Current Projects - Implementation Phase

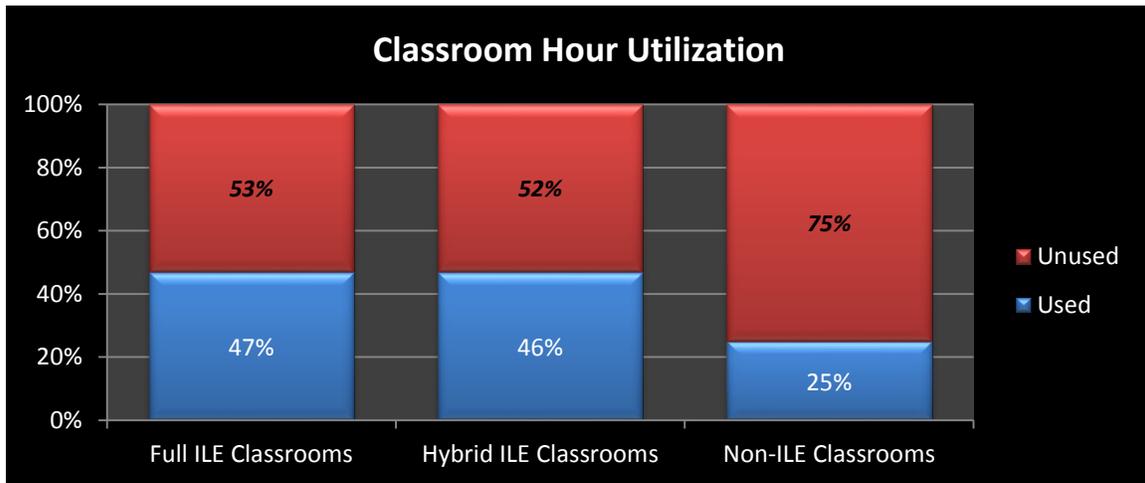
Project	Project Details	Est. Lifecycle Cost
<b>ILE Maintenance 2010 Project</b>	IS project to upgrade 56 ILE classrooms	\$304,346.50
<b>Grant Hall 227</b>	Full ILE Classroom/Recital Hall	\$59,958.67
<b>Cherry Hall Observation Rooms</b>	AV Recording systems for Counseling Rooms	\$2,068.98
<b>FA 307 Renovation</b>	ILE Partial and Space Renovation	\$4,500.00
<b>HH 103/104 Upgrades</b>	ILE Partial and Space Renovation	\$3,836.32
<b>LS Lounge</b>	Audio System and Video Switching System	\$4,735.25
<b>Total</b>		<b>\$379,445.72</b>

### Current Projects - Design/Planning Phase

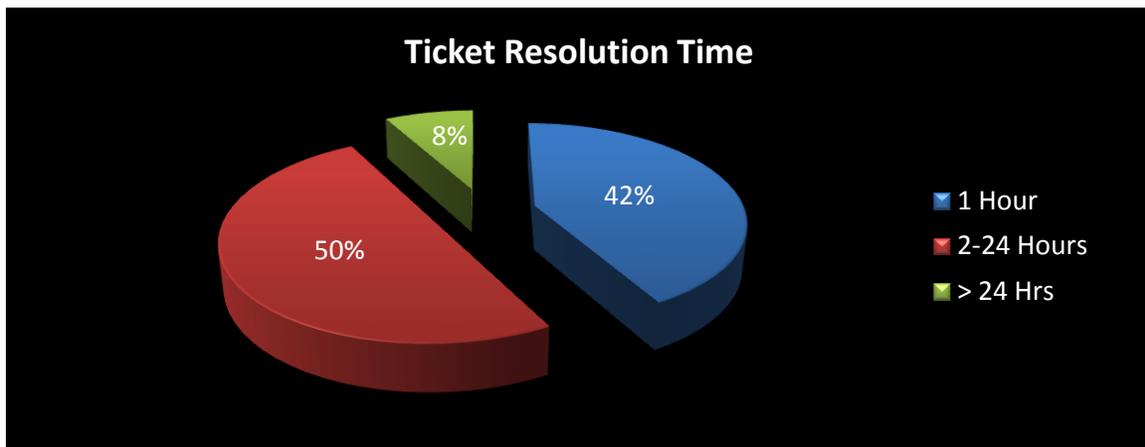
Project	Project Details	Est. Lifecycle Cost
<b>4301</b>	4301 Distance Education Upgrade	\$239,000.00
<b>Law Digital Signage</b>	Multiple Signage Displays	\$TBD
<b>Distance Education Program</b>	SOP Distance Education Program Lifecycle Upgrades	\$375,837.36
<b>FA 105 Renovation</b>	ILE Partial and Space Renovation	\$7,886.65
<b>LS Sat Service</b>	Satellite Service Installation (4 Locations)	\$TBD
<b>MNL Classroom Addition</b>	900 Seats of Student Instruction Space	\$875,000.00
<b>Oak Street Parking Structure</b>	Full AV Conference/Training room, Lenel Monitoring Displays	\$30,000
<b>SOM Docent</b>	Full ILE Lab (3) Partial w/ Audio AV Systems	\$88,734.69
<b>SDO 364</b>	Full ILE AV System	\$65,140
<b>SOP MSU ADDITION</b>	(3) DE/ILE Classrooms (2) Conference rooms (6) Collaboration Systems	\$1,260,707.75
<b>Campus IPTV System</b>	UMKC Cable-Digital Signage Distribution System	\$60,000
<b>Total</b>		<b>\$3,002,306.45</b>

**Other Notable Accomplishments:**

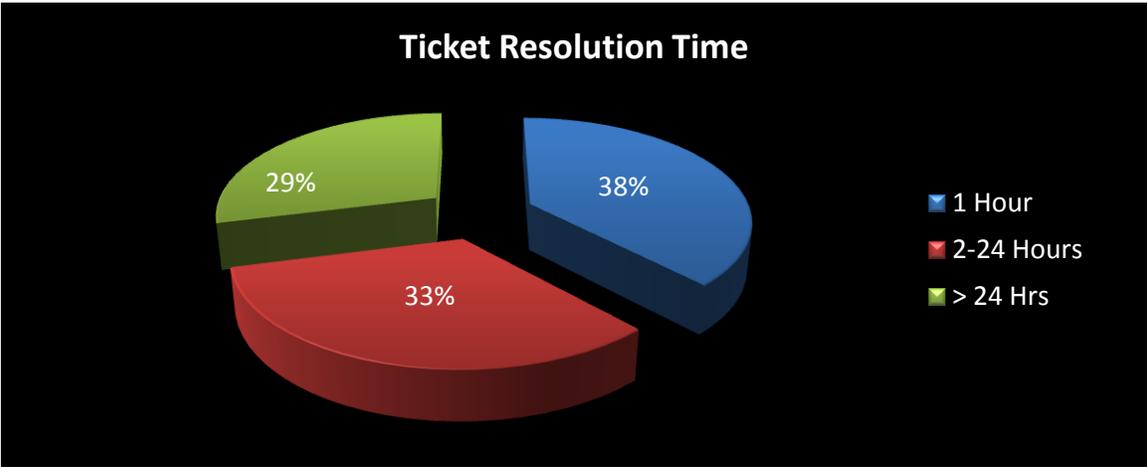
- During Fall Semester 2011, utilization of Full ILE classrooms was roughly 22% higher than Non-ILE classrooms. Hybrid ILE Classrooms utilization was 21% higher than a Non-ILE classrooms.



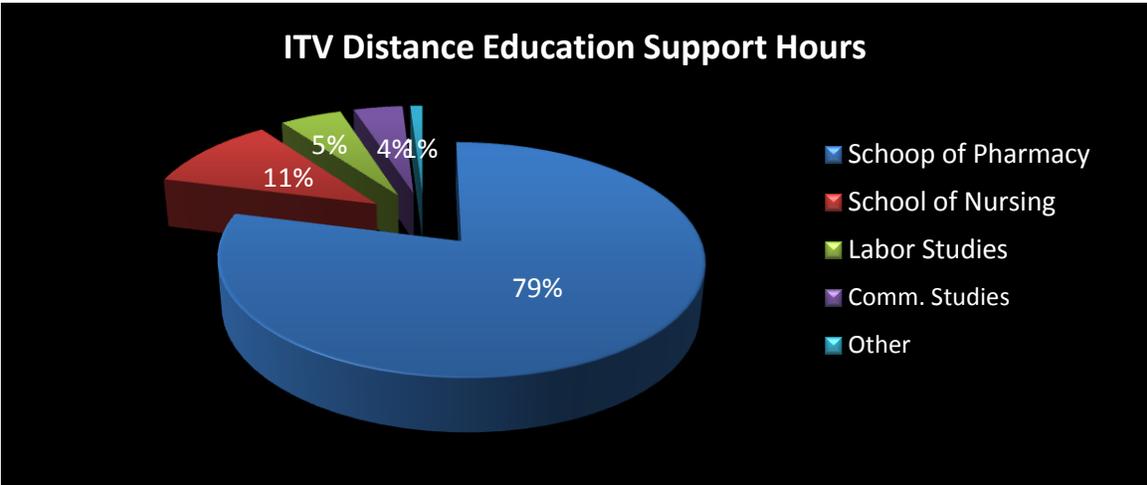
- Classroom Technology Services provided maintenance and support for ILE and AV systems on the Volker, Northland and a portion of the Hospital hill campus. During this period, 92% of all support tickets assigned to Classroom Technology Services were resolved within a 24 hour period. Of this 92%, 42% were resolved within 1 hour.



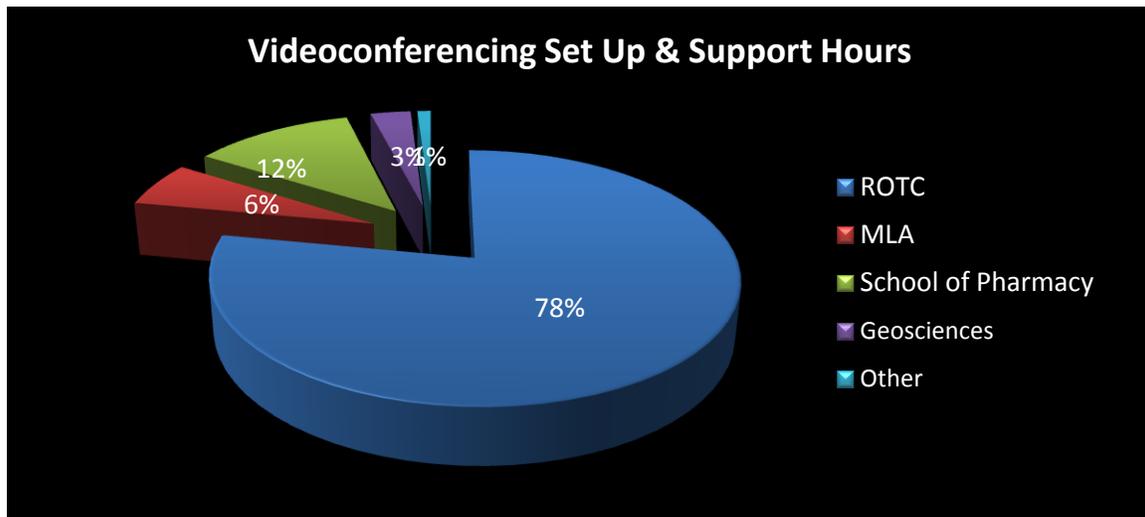
- Video Services provided maintenance and first-tier technical support for all ILE and AV equipment in Health Sciences Building. During this period, 71% of all support tickets assigned to Video Services resolved within a 24 hour period. Of this 71%, 38% were resolved within 1 hour.



- Our Video Services group provides technicians to support ITV Distance Education programs for a number of academic units with a majority of the support load dedicated to the School of Pharmacy and the School of Nursing. During this review period, we have managed 1249 hours of ITV room distance learning support.



- Our Video Services group also provides technical support for videoconferencing meetings on the Volker Campus and a portion of the Hospital Hill Campus. During this review period, we have set up and supported 144 hours of videoconference meetings



- The IS/IA Web Committee has continued to update the IS website to be more current and align with the new organizational structure we have. During this review period, we have completely rebuilt the “About Us” section of our site with shorter more succinct descriptions of what each department does including a short list of their primary services. We have added new maps showing which buildings have IS Managed computer labs for students. We have established a review cycle for our website analytics. This data will be reviewed each semester and compared to the same semester from the previous year for trend analysis.
- Installation completed on Bloch 04 and 05 modified ILE Hybrid Classrooms; these rooms additionally are equipped with Document Cameras.
- We have spent a considerable amount of time working on the MNL Classroom Addition project. The new classroom building will include (1) 300 seat auditorium, (2) 200 seat classrooms that can be combined into (1) 402 seat space, and (2) 106 seat classrooms. Initial estimates are valued at ~\$1,200,000. From being active members on the Learning Environment Task Force, to designing completely new classroom packages for this new space, CTS has made considerable contributions to this project thus far.
- Partnered with the School of Medicine to design a new ILE computer lab and multiple collaboration spaces as part of their docent space renovation project. Pending results of the first round of upgrades, there could ultimately be 32 spaces renovated to match.

- Installation completed for the new Bloch School Executive MBA classroom (Room 101). Project included a complete redesign of the space into a tiered classroom equipped with a dual projector ILE system, and a kitchen area. This room has an executive level finish with the highest quality ILE video and sound systems.

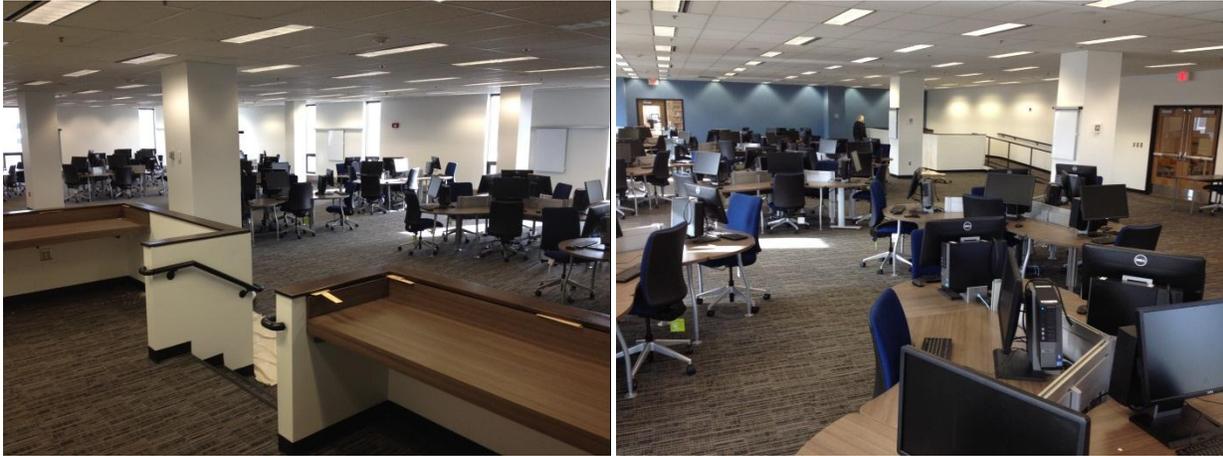


- Installation completed for the new Law Library. Technology includes a one of a kind collaboration classroom outfitted with 6 group study pods with large flat panels and the ability to share faculty and student content on any room display using a Crestron Digital Media system. Project also includes one large video wall with four 60 inch displays tiled into one large screen, one collaboration study room and 3 student internet kiosks.



- We are currently engaged in a collaborative effort with the UMKC School of Pharmacy and Missouri State University (MSU) to expand the Pharmacy Distance Education program. Costs include proposed design and integration of new technology for three DE classrooms, two conference rooms, four exam rooms and three student collaboration systems at the MSU location. (~\$1,300,000). This project would also include phased upgrades to all SoP distance Ed classrooms on the UMKC campus as well as the MU campus. The value for this portion of the project has yet to be determined.

- Partnered with the Math department and Support Services to install a new computer lab classroom in MNL. This lab includes a large classroom with up to 60 workstations where students will be able to work on online Math content and receive streaming lectures on the same monitor. Faculty will have the ability to monitor each student's online content via LanSchool software.



- Partnering with the Conservatory to install an ILE package for the Grant Hall recital hall (227). The system will be used for both class and performance events and will integrate with the Conservatory's current AV system.
- Completed the install for one ILE hybrid system for SCE computer labs in Flarsheim Hall.
- Completed \$307,741.64 of AV projects during this review period.
- Increased the number of supported AV Systems/Conference rooms by 7 new locations
- Completed ILE Classroom system maintenance in all ILE Classrooms during break.
- Video Production Projects
  - "Circus Maximus" Conservatory performance – Assisted with recording and supported live stream
  - "Radiation Safety" Academic video produced and directed by Video Services
  - Assisted Academic Enhancement in production of "The Coaches Show," including editing of basketball game highlights
  - Assisted Information Access with preparation of streaming Video on Demand (VOD)
    - Published 370 On-Demand streaming video.
- Research and testing began to determine best practices to use flash media server to stream live to desktops and mobile devices.
- Provided programming and scheduling for UMKC PEG cable channels.
  - Established relationships with 2 new video producers
  - Ingested 525 new video programs for broadcast