Accomplishments Report
Information Services

January-June 2017
Contents

Introduction ........................................................................................................................................5
MISSION ..........................................................................................................................................5
2017 GOALS ....................................................................................................................................5
FY2017 IS PROJECT LIST & POINT PERSON ..............................................................................5
FY2017 Shared Services Project List .............................................................................................6
Executive Summary .....................................................................................................................7
Computing Facilities ......................................................................................................................9
Campus Wide - Enterprise Support .............................................................................................9
Totals and Trends in IT Procurement ...........................................................................................11
   IT Procurement: Distribution by Vendors and Units .................................................................11
Appendix A: Support Services .....................................................................................................12
   Customer Requests ................................................................................................................13
   Call Center Metrics ................................................................................................................13
   Call Center Projects ..............................................................................................................14
Appendix B: IS Projects ..............................................................................................................15
   Completed Projects ..............................................................................................................15
   Current Projects – Implementation Phase ...........................................................................17
   Current Projects – Development Phase ...............................................................................23
   TMS Support Client Experience .......................................................................................26
   ILE Classrooms, Video Conferencing, Distance Ed, and On-Demand Video .........................27
   Building Network Infrastructure .......................................................................................29
Appendix C: Building Network Infrastructure ............................................................................31

Information Services Accomplishments January-June 2017
Panopto ................................................................................................................................. 48

User Viewing Usage: .......................................................................................................... 48

User Creation Usage: ........................................................................................................ 48

Folder usage: ...................................................................................................................... 48

Session Usage: ................................................................................................................... 48

Moodle ................................................................................................................................. 48

SharePoint .......................................................................................................................... 49

ListServ ............................................................................................................................... 49

ListServ Usage .................................................................................................................... 49

Customer Support ............................................................................................................. 49

Blackboard 24x7 Help Desk ............................................................................................. 49

Information Services Accomplishments January-June 2017
Introduction

Information Services is a strategic asset for UMKC’s missions of teaching and learning, research, service and economic development.

MISSION

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

2017 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
- Further automation of campus procedures to increase our efficiency as a campus
- Investigate new sources of revenue to fund campus initiatives

FY2017 IS PROJECT LIST & POINT PERSON

- Campus New Construction/Renovation – Guggenmos/Technology Management Services
  - Cherry Hall 4th Floor Renovations
  - Medical School 5th Floor Renovations
  - Chemistry-Biology Renovation – Phase 1
  - Dental School MSSU Expansion
  - Whole Foods Development
  - Robert W. Plaster Free Enterprise Center
- Civitas Analytics - Guggenmos/Technology Management Services
- Cockefair Hall Infrastructure Upgrades – Guggenmos/Technology Management Services
- Performing Arts Center Infrastructure Upgrades – Guggenmos/Technology Management Services
- Blackboard Upgrade to Ultra – Guggenmos/Technology Management Services
- ILE Classroom Lifecycle Upgrades Phase 2 – Guggenmos/Technology Management Services
- IS Multi-Department Inventory Tool – Guggenmos/Technology Management Services
- Campus Building Security – Guggenmos/Technology Management Services
- Expansion of wireless coverage – Schonemann/Network Architecture
- Cisco Jabber Collaboration Software – Schonemann/Network Architecture
- Cisco WebEx Online Meeting/Conferencing Software – Schonemann/Network Architecture
- Building Network Switch Refresh – Schonemann/Network Architecture
- Data Center Network Switch Refresh – Schonemann/Network Architecture
- Campus Core Network Switch Refresh – Schonemann/Network Architecture
- Exchange 2016 Upgrades – Schonemann/Network Architecture
- IP Address Management – Schonemann/Network Architecture

Information Services Accomplishments January-June 2017
• Investigate 3-D Printing – Reisenbichler/Support Services, Guggenmos/Technology Management Services
• UMKC Dashboard Upgrade/Redesign
• UM Data Hub

FY2017 Shared Services Project List

- Accounts Management – Goodenow/Information Access
- Establish Enterprise Architecture – Schonemann/Network Architecture
- ITSM – BMC Remedy Deployment – Reisenbichler/Support Services
- UM Network Architecture – Schonemann/Network Architecture
- ERP Review – Goodenow/Information Access
- Core IT – Fritts/CIO
- Knowledge Base – Reisenbichler/Support Services
- SecureAuth Implementation – Guggenmos/Technology Management Services
- Implement New UM IT Project Portfolio Management Tool – Guggenmos/Technology Management Services
Executive Summary

Information Services is a strategic asset for UMKC’s missions of teaching and learning, research, service and economic development. We continued to make progress toward our defined goals and this document details the progress we have made during the second half of the fiscal year 2016.

During this past review period, IS Support Services upgraded an additional 30% of the campus desktops to Windows 10. Before school starts ISSS will upgrade 1,300 campus academic labs to use Windows 10 as well as installing Office 2016 and 200 other pieces of software. 468 computers (many including softphones as an alternative to desktop phones) were purchased, imaged, configured and deployed as part the Workstation Replacement program over three months early in the year. The campus transitioned to new password and authentication tools provided by SecureAuth. The Call Center handled over 13,500 support requests with over 95% very satisfied based on customer service response surveys.

In the Shared Services area, we worked with our sister campuses on ITSM and O365 upgrades. Locally we are close to signing MOU agreements with the School of Education and University Libraries to provide desktop support and other IS services.

Campus Technology Services completed technology upgrades to 29 ILE rooms to HD widescreen digital video & projection systems, enhanced audio processing with web conferencing, and voice over IP features. Our Video Services group supported 793 hours of iTV distance learning. The additional hours show an upward trend continuing the last few years.

The Project Management and Infrastructure Services departments worked a number of high profile projects including the following:

- School of Dentistry expansion with Missouri State in Joplin
- School of Medicine infrastructure replacement and floor renovations
- Chemistry/Biology Building Renovations
- Civitas Analytics Implementation
- Wireless Network – Dorms and Apartments
- Whole Foods projects
- Exchange 2016 projects – UMKC serving as disaster recovery location for the UM System

Efforts of the Information Access Division were notable for the improvements made in measurements of customer response times, despite a steady increase in requests for service. Internal applications completed new software/application solution for University Libraries, Continuing Education, and undergraduate research. The campus expanded our dive into SalesForce with three projects and supported the campus goal of student retention with additional data and reporting from uAchieve.

ITS worked with Blackboard and other campus groups to move our Blackboard instance from Blackboard’s Managed Hosted environment to their SaaS (software-as-a-service, cloud-hosted) environment during the last half of 2016, and completed the work in January 2017. The migration resulted in several Blackboard outages during the early part of the spring 2017 semester, but we worked with Blackboard on remediation steps, and it has been stable since then. Because of our issues with this migration, ITS, in partnership with UMKC Online, began looking at the Canvas LMS as a possible

Information Services Accomplishments January-June 2017
replacement for Blackboard in the future.

Proctoring products like Respondus Monitor, and video services such as Panopto and Kaltura, continued to be popular among faculty and students. Emerging technologies in the response-ware realm prompted us to develop and implement a pilot of Top Hat, a potential replacement for Turning Technologies Clicker products. This pilot will run through fall semester 2017.

Foundation Services hosted over 500 servers in our local data centers or via Amazon Web Services.

Academic Enhancement supported live streaming or video events for over 20 different units on campus.

The UMKC networking team continued work on the 10-year building-wiring plan. Category 6 infrastructure upgrades were completed in the School of Medicine and progress continued in Cockefair and Scofield Halls. The group also worked on renovation/new constructions projects with Whole Foods, the downtown arts campus and the Chemistry and Biological Sciences buildings.

UMKC phone operators handles ~34K phone calls with 75% of the calls being automatically routed and the remainder requiring human interaction.

ISS upgraded the edge campus firewall with the newest generation of equipment, enabling higher traffic speeds for the campus Internet connection. The original traffic limit was in the five Gigabit/sec range, the new limit is in the 10 to 15 Gigabit range. The campus data center firewall was replaced with the original campus edge firewall, allowing a significant speed increase for traffic through the data center. The original limit was in the 2.5 Gigabit/sec range, with the extra filtering options disabled on the migrated firewalls, we can now transmit 8 to 10 Gigabit/sec. The ISS team worked to disable Windows vulnerabilities and decrease the amount of spam and phishing attacks on students, faculty and staff.

Looking forward Information Services is establishing new long range staffing and budget planning processes. IS exploring new services and offerings to continuously improve the service and offerings for students, faculty, staff and the entire UMKC community.
Computing Facilities

We had **13,013** distinct individuals use computing sites between 1/1/2017 and 6/30/2017. This represents a large percentage of our student base and exemplifies the usefulness of these facilities.

In addition to the physical computer sites, we had **1,574** distinct individuals who logged into RemoteLabs a total of **12,869** times.

IS also did a major overhaul of the Interactive Learning Classroom, which consisted of replacing 48 computers.

**Print Quota.** Performed application upgrades on PaperCut across the student computer labs. This adds additional functionality to students and ensures we are up-to-date.

**Other Projects**

**American Conference for Irish Studies (ACIS).** Provided technical support for the annual weeklong ACIS conference. This large event spanned several buildings on campus and required dedicated tech support.

**Encryption.** Expanded the use of encryption (BitLocker & FileVault) on campus laptops and desktops. This additional security ensures that if a computer is lost or stolen UMKC data is not at risk.

**PCI.** We have seen an increase in PCI requirements, both from a technical perceptive as well as from an audit standpoint. We have updated our PCI Image to meet current requirements. We also have created several templates within ITSM to keep track of all changes to our PCI environment.

The Lab Management Office maintained operations in six IS-managed general use student computer labs, eight restricted access labs, and supplied one associated computer classroom.

- Maintained sufficient student employees to staff labs by processing 60 applications for Student Assistant positions, conducting 58 computer skills tests, interviewing 30 prospective new hires, and hiring 38 new Student Assistants for IS-managed labs
- Over 138,400 print jobs were printed in IS-managed general-use student computer labs, totaling over 953,200 pages

**Campus Wide - Enterprise Support**

**AirWatch.** Continued to expand the use of our Mobile Device Management solution, AirWatch, across both UMKC and the other campuses. This tool is valuable for increasing efficiencies in managing mobile devices as well as protecting University data. IS is currently in the process of upgrading to AirWatch 9.x.
SCCM. Continue to use Microsoft’s SCCM as a key part of our asset management solution and our preferred method of software installation. Over the last 6 months, SCCM was used to install 34,103 pieces of software across campus. We also imaged 237 lab computers using the Operating System Deployment functionality of SCCM.

We performed a major upgrade of SCCM to the current branch, 1702. This allows us to continue to manage the new Windows 10 builds across campus.

Casper. Expanded the use of Casper, our asset management tool and software deployment tool, for Apple computers. Some of the new initiatives include:

Thin Imagining. Due to upcoming changes in Mac OS, we have started investigating thin imagining. This represents a major change in how Apple computers are deployed.

Web pushes. Fully implemented the ability for technicians to deploy software to Mac OS computers via the web via a custom-built portal. This provides technicians a single location to deploy software for both Windows and Apple computers.

Mac OS Images. Updated all Mac OS images to the latest versions of Mac OS

Upgrade. Performed an upgrade to Casper to gain additional functionality and patch security vulnerabilities.

Naming Conventions. Established standards for policies, smart groups, and collections.

Asset Management. Examining new methods for collecting asset information on Mac OS and leveraging Casper to improve our reporting ability. We expect this to move to production in the next 6 months.

Reporting. The Enterprise Support team updated many of the online reports and revamped all of the ITSM reports for UMKC Central. We also created/updated several of our asset management reports for both hardware and software to provide information that is more detailed.

Website. Updated the IS website throughout this period with meeting notes, new product information, new software and hardware options, etc.

Software updates. Planned, tested, and deployed several updates to all Windows campus computers to ensure software is up-to-date. This is done to both give our customers the latest products and tools but also to limit vulnerabilities. Over 150 SCCM packages were created during this period.

Supported hardware. Over the last 6 months, we had changes on both our Dell and Apple standards. With Dell we saw new laptops and desktops and a brand new docking solution. Apple saw updated iMacs and MacBooks. Extensive testing and image updates were completed.
Totals and Trends in IT Procurement

- Purchased a little over $1,500,000 worth of IT hardware and software, including computers, tablets, software, web services, subscriptions, service warranties, maintenance agreements and usage fees
  - This represents a 5.5% decrease in total spend and a roughly 10% drop in the total number of requests processed over the same period one year ago
- However, this decrease does not even create a dip in the trend of explosive growth in orders and spend per fiscal year as measured over last decade
  - For the first time, Information Services processed over $5,000,000 during the last fiscal year
  - This represents growth of 17% over the previous year
- The successful consolidation of IT purchasing for academic units over the last few years is a primary growth factor in spending and activity year over year

IT Procurement Spend by Fiscal Year (2008-2017)

IT Procurement: Distribution by Vendors and Units

<table>
<thead>
<tr>
<th>Unit</th>
<th>Hardware Spend</th>
<th>Software Spend</th>
</tr>
</thead>
<tbody>
<tr>
<td>University Libraries</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bloch School of Management</td>
<td></td>
<td></td>
</tr>
<tr>
<td>College of Arts &amp; Sciences</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Diversity and Inclusion</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Marketing &amp; Communications</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Research and Economic Development</td>
<td></td>
<td></td>
</tr>
<tr>
<td>School of Computing &amp; Engineering</td>
<td></td>
<td></td>
</tr>
<tr>
<td>School of Education</td>
<td></td>
<td></td>
</tr>
<tr>
<td>School of Law</td>
<td></td>
<td></td>
</tr>
<tr>
<td>School of Nursing and Health Studies</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Student Affairs</td>
<td></td>
<td></td>
</tr>
<tr>
<td>IT Spend by Unit (January - June, 2017)</td>
<td>$115,311.38</td>
<td>$10,284.27</td>
</tr>
<tr>
<td></td>
<td>$2,296.30</td>
<td>$101,081.59</td>
</tr>
<tr>
<td></td>
<td>$219.42</td>
<td>$158,733.66</td>
</tr>
<tr>
<td></td>
<td>$2,918.46</td>
<td>$184,443.22</td>
</tr>
<tr>
<td></td>
<td>$8,393.40</td>
<td>$166,261.64</td>
</tr>
<tr>
<td></td>
<td>$12,084.09</td>
<td>$184,443.22</td>
</tr>
<tr>
<td></td>
<td>$28,148.68</td>
<td>$172,140.28</td>
</tr>
<tr>
<td></td>
<td>$57,853.37</td>
<td>$184,443.22</td>
</tr>
<tr>
<td></td>
<td>$45,947.66</td>
<td>$172,140.28</td>
</tr>
<tr>
<td></td>
<td>$56,092.21</td>
<td>$172,140.28</td>
</tr>
<tr>
<td></td>
<td>$88,514.42</td>
<td>$172,140.28</td>
</tr>
</tbody>
</table>
Appendix A: Support Services

Highlights and key initiatives

**Windows 10:** IS continues to make progress with Windows 10 as the standard operating system. Over the last 6 months, we increased the number of Windows 10 computers from 1,199 to 1,695 - an increase of nearly 30%.

The lab team is preparing to migrate the IS managed computer labs and ILE rooms, roughly 1,300 computers to Windows 10 during the summer refresh. To meet this goal, we are developing new images and performing software compatibility testing for over 200 pieces of software used in the various Academic labs throughout campus.

**Microsoft Office 2016:** IS has been upgrading Windows campus computers to Office 2016. This migration is being deployed over the network without direct technician intervention. While this project is not 100% completed by June 30, over 2,000 computers were upgraded in the month of June alone.

**Workstation Replacement Program (WRP):** During this year’s WRP IS purchased, imaged, configured, and deployed 468 computers over a three-month time span. Microsoft LiveCams HD 3000 were included with all faculty/staff systems to better facilitate virtual meetings and softphones.

**SecureAuth:** Transitioned to the new Secure Authentication tools and updated the UMKC password and security registration website to improve security for university data. Additional SecureAuth initiatives can be found under the Call Center section of this report.

**Jabber:** Worked with an IS Project team to test equipment and identify a set of standard soft phones that will be available to departments to purchase as part of the transition to Jabber. Also worked to deploy Jabber to numerous campus computers.

**ITSM:** Worked with u-wide project team on the 9.1 ITSM upgrade, made some progress with SmartIT and began an investigation into other service management platforms.

**Shared Services:** Worked with IT management to develop shared services templates and agreements. Began working with the School of Education and University Libraries on a new service agreement.

**O365:** Started planning process for O365 with a u-wide project team. Worked on various aspects of the project including governance, migration tools and account management issues.

**Special Events:** Staffed registration sessions during six student orientations. Worked with Student Union on special event in SU 210 computer lab.
Customer Requests

Over the last five years, the support volume in Support Services has fluctuated some, although the overall cycle is fairly predictable. During the last six months, we have seen the support request numbers align closer to those in previous years. However, January and February saw an increase due to Blackboard outages along with users registering with SecureAuth.

- Customer satisfaction continues to remain very high. Over the last six months, Support Services has a 95% Very Satisfied rating. The following chart represents customer satisfaction data collected from surveys closed by IS Support Services for the period of Jan. 2017 through June 2017.

Call Center Metrics

- The Call Center created 13,504 support requests, resolved 11,126, and escalated 2,378.
- The Call Center’s first-contact resolution rate over the last six months was 80%.

<table>
<thead>
<tr>
<th>Time Period</th>
<th>Total Number of Call Center Support Requests</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q3 &amp; Q4 2014</td>
<td>12723</td>
</tr>
<tr>
<td>Q1 &amp; Q2 2015</td>
<td>12746</td>
</tr>
<tr>
<td>Q3 &amp; Q4 2015</td>
<td>14176</td>
</tr>
<tr>
<td>Q1 &amp; Q2 2016</td>
<td>12300</td>
</tr>
<tr>
<td>Q3 &amp; Q4 2016</td>
<td>14183</td>
</tr>
<tr>
<td>Q1 &amp; Q2 2017</td>
<td>13504</td>
</tr>
</tbody>
</table>
Call Center Projects

- **Account Management**
  - Office 365 – The Call Center continues to be the primary support contact for students using the Office 365 email system
    - Set up 17 Office 365 email accounts for alumni in conjunction with the Alumni Association
  - Created 62 guest/ resource/ departmental accounts and worked with office of Operations and Administration to bill accordingly.
  - Worked with Admissions, Registration and Records and various UM IT groups to address SSO account creation and maintenance issues.

- **AIMS** – Account Management tool which is used by UMKC, MST, MU, and UMSL
  - AIMS 2.0 was tested and released to production in April, with subsequent updates to enhance performance and efficiency in May and June. The Call Center tested and offered suggestions to help refine the new tool throughout the first half of the year.

- **ITSM** – IT Service Management tool used by UMKC, MST, MU, and UMSL
  - Created new templates for the Call Center to use when creating incidents
  - Performed People Data modifications as necessary and worked with Enterprise Management team to improve our ITSM Users database

- **SecureAuth** – Two Phase Authentication Toolkit
  - Pathway’s Bootstrap option for students was switched to SecureAuth on March 4th.
  - myHR’s Password reset tool was switched to SecureAuth on March 11.
  - Walked callers through registering their security information, as time permitted.

- **Exchange** – UM upgraded the Exchange server from 2010 to 2016 in December 2016.
  - Notified and assisted users over the 15GB quota limit
  - Discussed transition to Exchange 2016 with callers, as questions arose.

- **RightAnswers** – Self-service knowledge base solution used by UMKC, MST, MU, and UMSL
  - Collaborated with all four campuses to test the upgrade to version 9 in Feb.
  - Worked with UM and RightAnswers to correct problems with the new upgrade
  - Approved and published RightAnswers articles created by Call Center staff.

- **Bomgar** – UMKC-hosted remote support solution used by UMKC, MST, MU, and UMSL
  - Performed appliance and instance upgrades as necessary.
Appendix B: IS Projects

As a division, we have worked with several academic & business units to renovate, design, install and provide ongoing support for multifaceted information technology and audiovisual systems. The following sections touch on the key IT/AV projects by phase that consumed a significant amount of IS resources time during this last review period.

Completed Projects

P152- SOD MSSU Expansion
The School of Dentistry is in the initial stages of a program study to expand to Missouri Southern State University in Joplin. Currently, the IT/AV scope includes upgrading (3) existing classrooms at the UMKC Dental School with technology to support distance education which will be completed consecutively. The upgrades at MSSU include updating (4) classrooms to distance education platforms, a complete overhaul of a skills lab, the addition of a new conference room and a large office suite. There will also need to be a dedicated network between UMKC and MSSU. During this review period, for phase 1, the Dental School selected SOD room #202 for upgrades. The ISPM has been working with the client, CFM, the architect and vendor/integrator to design and quote the classroom system and plans to oversee or PM SKC’s integration going forward. Phase 1 began construction December 19th, 2016 and is expected to be completed on January 16th, 2017.

209-Exchange 2016
This is UMKC’s part of the larger UM System Exchange 2016 migration project. UMKC’s piece is to house the DR site for the ACI and virtual servers at the Administrative Center Data Center. During this review period, IS assisted in the installation of exchange equipment in the KC data center, reconfiguring campus Outlook clients to use cached mode, identifying all unsupported clients and communicating with this group on several occasions to ensure they were using a supported client, assisted numerous faculty/staff in resolving issues with their quota, and lastly, migrated all UMKC mailboxes to the new platform with no issues.

P210- SOM 5th Floor Renovation
Project for the renovation of the 5th-floor docent space in the SW Quadrant into research space for the Bioinformatics Research Group and the Center for Health Insights group. IS Completed ILE/AV technology upgrades for (3) conference rooms, (3) interactive spaces, a huddle space, and signage, as well as completely replacing network infrastructure in the space.

P223-School of Medicine Infrastructure Replacement
This project is to bring the building infrastructure up to current standards by rewiring all the voice and data jacks on all floors in the building. This building has six floors and is being rewired one floor at a time. We completed the entire building during the first quarter of 2017.

P228- SON Dispensing Lab
This project for the School of Nursing enhances a high-end teaching lab with manikins and specialized software. The software records simulated activities and synchronizes video from several cameras and digital information from the manikins, which simulate a patient’s biological reactions to medical choices made by the students. This period the lab saw its first production use. TMS staff helped end users get
used to quirks of the recording system, and worked with Network Architecture on enhancements to the network that improved reliability. TMS staff also performed routine system checks to ensure operability. One new manikin is in route at this time, and TMS will assist with joining it to the network.

**P232- ILE Class Room Upgrades FY17 – IS Funded**
As part of our continual process of keeping the highest quality student experience, IS is upgrading 29 ILE rooms to HD widescreen digital video & projection systems, enhanced audio processing, with web conferencing, and voice over IP features. During this review period, we have collaborated with the Registrar’s office, CFM and other units in IT to update the remaining 22 classrooms with new equipment bringing the project to 100% complete.

**P235- SCB 504 AV Upgrade**
This project includes renovating an existing classroom space in the Spencer Chemistry Building. IS was been scoped with installing a standard tier 3 ILE classroom with the addition of lighting and shade control. The room will also be used for soft video conferencing. During the last review period, the system design was finalized and facility requirements were defined. Facility related work completed and the IT/AV installation was 90% completed. During this review period, room shades were installed and the project was closed out.

**P243- FH205 Conference Rm AV Upgrade**
This IS AV upgrade is to add multiple data drops and a projection screen to Flarsheim Hall conference room 205. During the last review period, the ISPM worked with the Physics and Astronomy Departments, CFM and the AV department to define scope, budget and completed system installation. During this period, the ISPM closed out the project.

**P247- Bloch Lease – 4328 Madison**
This project provided internet connectivity and installed three wireless access points for the Bloch Incubator in the leased office building off campus.

**P256- Son Echo Hub Conference Room**
This IS project involves installing technology for a new program created by SoNHS that uses a specific teleclinic model developed by the University of New Mexico. During installation, the ISPM and AV department worked closely with the Hospital Hill team to purchase and install the recommended equipment and position the space for ongoing IT support.

**P269 – Cherry St. AP Installations**
Install in-room access points in Cherry Street Hall to provide ubiquitous wireless coverage throughout the building. During this period, we installed 49 access points across three floors.
Current Projects – Implementation Phase

P171 - Chemistry/Biology Building Renovation
As part of a multi-year phased building renovation project, IS will be demoing & replacing building network infrastructure and installing new IT closets and switch gear on Chemistry floors 2-4, and updating (6) classroom/lab environments and (1) conference room. Construction has begun, primarily focused on demoing existing spaces. During this review period, we completed IT/AV system design for all systems, moved/installed data to support construction related office moves, reviewed options for computer lab upgrades with Chemistry, and added low voltage demo work to IT scope.

P177 - BEH 333 ILE conversion
This is a renovation project to repurpose a small break room into a teaching and seminar space with AV/ILE capabilities that match the other classrooms in Bloch Executive Hall. The renovated classroom will provide seating for ~20 students. This space will be used primarily for upper level and graduate classes in the Department of Global Entrepreneurship and Innovation. The technology will provide for lecture-style teaching as well as student-centered active learning. During this review period, a funding source was identified and the project approved, system installation was completed, client and user groups were trained, and the room is back online for regular use.

P196 - IS Multi-Departmental Inventory Tool – IS Funded
IS is working on developing a new custom inventory application to provide real-time asset management, inventory management, and equipment life cycle planning for IT equipment that is not being currently tracked. This solution will have a web application component paired with a mobile app. During this review period, we completed a series of workshops with Information Access to identify and refine tool requirements, reviewed final requirements with key user groups and began the process of building value lists for application development. During this next review period, we expect to develop the Alpha version of the app and run through testing.

P202 – 51st_Holmes St Renovation
This CFM project involves the widening of Holmes Street between 51st & 52nd. The primary purpose is to allow emergency vehicle access when cars are parked on both sides of the street. The Infrastructure components of this project include keeping existing voice and data services from being damaged and adding additional conduits for future use. During this review period, bids went out and the contractor was selected. IT materials were ordered, demo/construction started with an anticipated completion date of July 24.

P205 - SU401 Wall Plate Upgrade
Project to perform technology upgrades to Student Union 401 that will overhaul the video and control system and adjustments to the audio section. The upgrades will include new projectors, a video switcher and wall plates. During this review period, system design was completed, the client approved the project, and equipment was ordered. We anticipate finalizing this project during the next review period and turning the space over to the client for regular use by the start of Fall Semester.

P206 - Civitas Analytics
This project will include IS working with Civitas, and UMKC’s University College, Academic Affairs, Student Affairs, Institutional Research, and Data Warehouse to implement the Civitas Illume learning platform. Illume is a powerful app that provides a compelling view of a given institution’s historical and
predictive student flow. The project will merge diverse data sources from UMKC’s SIS, LMS, and other systems. Illume will then apply state-of-the-art data science to identify useful insights through meaningful visualizations. The intended outcome for UMKC will be the ability to try and test the impact of initiatives and grant programs. During this review period IS worked with Civitas to develop a custom data dictionary for UMKC that was less technical, worked with Civitas to develop a custom filter for UMKC, updated the retention cohort table and related views for Civitas, and verified the completed filter was good to go.

P214- Wireless Network – Dorms & Apartments
This project involves the purchase and installation of new, in-room Wireless Access Points for UMKC dorms and apartments to improve the wireless coverage and bandwidth in the student living spaces. During this review period, we continued with Phase II of this project. Johnson Hall now has wireless access points installed in each dorm room. The Hospital Hill Apartments currently have sufficient coverage, so we have removed that from Phase II of this project and closed the project.

P215- IP Address Management
The scope of this project is designed to refresh our DNS/DHCP infrastructure. The new system will include an IP address management tool and DNS security features, as well as provide a consolidated management console to control the various IP address functions. During this review period, the solution offered by Infoblox was accepted and implementation processes began with cutover scheduled in July 2017.

P217- Telepresence VCS-VCE
This project is designed to make video conferencing easier to use on and off campus. Leveraging key components of our existing VoIP phone system and Telepresence video conference system, we will add new modules that will allow us to greatly increase the number of video conference endpoints on campus. These new video endpoints are designed for a wide range of use cases from personal webcams to conference rooms to large classroom environments. The new modules will also integrate our existing Polycom, LifeSize, Tandberg, etc. room-based video endpoints into a streamlined dialing plan. During this review period, all hardware was installed and we began deploying individual units in various locations across campus.

P218- 802.11AC Radio Upgrades
This project involves upgrading the 802.11ac radio modules to the existing Cisco 3600 wireless access points on campus. These new radio modules will allow those access points to provide greater wireless network performance in the locations they serve. The project is currently 55% complete.

P219- Building Switch Refresh
This project involves replacing approximately 144 access and distribution layer switches in 18 buildings where we have previously installed Cisco 4506 series switches. UMKC Networking will be installing Cisco 4500X series distribution switches and Cisco 3850 series access switches. The new switches will increase the building backbone from 2 GB to 20 GB. The access switches will also provide 802.3at (60 watts) Power over Ethernet, PowerStack & M-Gig Ethernet ports for next generation wireless access points. During this review period, we upgraded building switches in five campus buildings (General Services Bld., Health Sciences Bldg., Medical School, Dental School and Scofield Hall), which completed Phase III of the project. Planning for Phase IV is underway.
**P221- Network Core Switch Refresh**
This project will replace the existing two primary campus core routers that form the backbone of the UMKC network. Currently, each of these routers supports 55 building uplinks. The new core routers will be installed in geographically separated data centers on campus and will support high-density 10 GB & 40 GB uplinks to the campus buildings. The new uplinks will greatly increase the available bandwidth on UMKCnet. During this review period, the routers arrived, have been unboxed and installed in racks for testing. We are planning the cut over during the next six months.

**P224- Cockefair Hall Infrastructure Replacement**
This project is to bring the building infrastructure up to current standards by rewiring all the voice and data jacks on all floors in the building. This building has three floors and is being rewired one floor at a time. During this review period, we have finished rewiring the first floor and began working on a new IT room. We plan to complete the remaining buildings over the next few months.

**P226- Blackboard Upgrade to Ultra**
This project will upgrade our current Blackboard Learn Learning Management System (LMS) to Blackboard Learn Ultra. Ultra represents an LMS redesign based on qualitative research with students and instructors that integrate a sleek user interface with simplified workflows for all users. Instructors will have tools to help develop curriculum, interact with students, and provide useful and timely feedback through improved grading features. The student experience will prioritize their coursework, giving them tools to manage tasks and time and to work collaboratively. This new platform will allow a seamless transition between desktop and mobile devices, further improving the teaching and learning experience. During this review period, we addressed multiple issues with the Blackboard platform that occurred following the SaaS migration and determined that Blackboard is no longer able to provide a satisfactory LMS platform for UMKC. We will begin phasing out this platform.

**P229- Jabber Campus wide**
This project will expand UMKC's existing Cisco Jabber offering from a 100-150 pilot group to a campus wide solution. Cisco Jabber is an all-in-one communication tool including functionality for instant messaging, presence, telephony, voicemail, and video conferencing. UMKC intends to federate Jabber with Skype for Business instant messaging and Office 365 for system wide communications. At the same time, MU is also looking to do the same – REMOVE this sentence. Cisco Jabber is device agnostic and includes clients for Windows and Mac computers, Apple, Android, Blackberry smartphones, and tablets. During this review period, we began to formalize soft phone bundles, so users can quickly determine which headset fit their needs, as users continue to adopt Jabber as UMKC’s softphone solution. We are unable to implement Jabber any further due to an interdependency with the Office 365 project. Once Office 365 is live, we can federate Jabber in that environment and begin testing.

**P230- SecureAuth Initiative**
This project involves working with UM System to launch the new SecureAuth Toolkit as part of a phased approach in implementing two-factor authentication. Information Services' roles in implementing these tools are to collaborate with the campuses in planning, testing the new tools, and communicating this information to our campus users. During this review period, pathway’s Bootstrap option for students was switched to SecureAuth on March 4 th, Myhr's Password reset tool was switched to SecureAuth on March 11 th, and the UMKC Call center Walked callers through registering their security information, as time permitted.
P233- Royal Hall 111 Auditorium Upgrade – IS Funded
This is a project to update the large ILE Auditorium in Royall Hall room 111 (approximately 300 seats) to have better projection systems, sound systems, and infrastructure for recording, to align with what students experience in newly designed auditoriums in MNL and Bloch Hall. CFM is planning various room updates for ADA access, lighting, mold abatement, seating, sound treatment, carpet, and paint. During this review period, CFM committed to moving forward with the project, IS finalized the IT/AV system design and ordered equipment, and the renovations/upgrades are scheduled to occur during summer of 17 to be completed by the start of fall semester.

P236- ASA Life Cycle
This project is designed to replace many of the small network firewalls used across UMKC to protect HIPPA, FERPA, PCI and other sensitive network traffic. The new firewalls will utilize Gigabit Ethernet interfaces and advanced traffic shaping and policy features while being centrally managed for more consistent software upgrades. During this review period, we consolidated three existing firewalls and created three new secure cluster firewalls in the Data Center.

P238- SRC FWI Upgrade
The scope of this project involves updating and adding new touch screens and Direct TV screens in several locations in Swinney Recreation Center. During this review period, the client changes to design requirements, system design was updated, client approved the updated design, equipment was ordered and gear has started to arrive. During the next review period, CFM work should be completed, hardware installed and the system turned back over to the client for regular use by the start of Fall Semester.

P250- FH Classroom to Lab Renovation
This project came about due to a request from SCE to reclassify existing rooms to faulty lab spaces. IS scope includes modifying (7) existing classrooms to be (6) new faculty lab spaces which will include some CFM facility renovations, and several ILE/AV system changes. During this review period, the IT/AV system design was completed, the client approved the project and equipment were ordered. We anticipate completing this project during the next review period with all spaced being back online for the start of fall semester.

P252- FH557 AV Upgrade
This project is to install typical ILE classroom equipment into Flarsheim Hall 557. During this review period, this space was converted from departmentally owned to centrally scheduled, equipment was ordered, ILE gear installed and the system was turned back over to SCE for regular use.

P258- Library Kiosks
Miller Nichols Library (MNL) received a grant to install a Kiosks station to help student’s access books online. The ISPM is working with Support Services to develop a special desktop image for security and a user interface for students. During this review period, the client reduced project scope to focus primarily on user Kiosks and software with little to no AV. The client approved the project, Support Services began working on the custom PC images, and the Library began designing the website, which will function as the user interface for students. We anticipate this project will be finalized during the next review period.
P263 – SIS ERP
The SIS (PeopleSoft) project includes UMKC’s Admissions, Student Records, Student Cashiering, Student Financial Aid, and Campus Community. The current SIS version, v9.0, used by all UM campuses, will be unsupported after December 2019, and all campuses must upgrade to v9.2 by December 2019. The strategy and requirements for a future system, leading up to and following v9.2 implementation, will be evaluated and a recommended strategy will be presented to Campus Provosts. This project will review all application business processes on each campus, identify processes that will be mandated across the campuses, and identify business processes are unique. During this review period, the ISPM conducted several meetings with the Registrar’s Office, Office of Admissions, Financial Aid Office and Cashier’s Office in order to determine the units’ business processes in a structured “Supplier, Input, Process, Output, Customer” (SIPOC) format per UM System’s request. The ISPM completed these SIPOCs quickly, and prior to the deadline, to ensure UM System could move forward with their data analysis.

P265 – ILE Classroom Upgrades FY18-IS Funded
As part of our continual process of keeping the highest quality student experience, IS plans to upgraded 29 ILE rooms in FY 18 to HD widescreen digital video & projection systems, enhanced audio processing, with web conferencing, and voice over IP features. During this review period, we have partnered with the Registrar’s office to identify the rooms to be upgraded, updated system designs to accommodate ILE spaces with more equipment than typical, and ordered a system for staff to use for testing. During the next review period, we anticipate finalizing the equipment list and ordering equipment with the project completion scheduled for the end of FY18.

P266 – Video Conferencing for Distance Ed
MOREnet is planning to retire old h.323 infrastructure over the summer. This will force a change in how video distance learning classes connect and may affect user controls for existing systems. UMKC has invested in Cisco Unified Communications infrastructure, and there could be economies of scale to using either Cisco codecs or other soft codecs in place of existing h.323 video conference systems. This project aims to determine the best options moving forward for room design and video conference connection modalities.

P267 – UPS Battery Replacement
This project is to replace old batteries in the existing IT Closet (UPSs if possible). In some cases, the UPS will actually need to be replaced. During this review period, we replaced the batteries in all the IT rooms in five campus buildings.

P268 – BSR Phase IV FY18
This project involves replacing the remaining access and distribution layer switches after BSR phases 1-3 are completed and starting with the fiscal year 2017. These are buildings where we had previously installed Cisco 4506 series switches. UMKC Networking will be installing Cisco 4500X series distribution switches and Cisco 3850 series access switches. The new switches will increase the building backbone from 2 GB to 20 GB. The access switches will also provide 802.3 at (60 watts) Power over Ethernet, PowerStack & M-Gig Ethernet ports for next generation wireless access points.

P270 – FH 205 Projector Upgrade
The project entails adding a projector to an existing lab/conference room space for use during meetings. During this review period, IS finalized the system design, secured client approval, and ordered the equipment. We anticipate completing this project during the next review period.
P274 – Scofield Hall Infrastructure Replacement
This project is to bring the building infrastructure in Scofield Hall up to current standards by rewiring all the voice and data jacks on all floors in the building. Part of the ongoing infrastructure improvement efforts but we are managing each building as individual projects to better track costs/materials/timelines. This building has five floors and is being rewired one floor at a time.

P276 – SOM Library M2-202A Collab Upgrade
Project to upgrade a SOM Library collaboration space by adding a display and video switcher to give 4 stations the ability to present to the screen. There will be minor CFM work involved as well. During this review period, IS finalized the system design, secured client approval and ordered equipment. We anticipate completing this project during the next review period.

P277 – Canvas Pilot
This multi-year project will begin with the evaluation of Canvas. The intent is to implement Canvas and convert all activities performed in Blackboard to the Canvas platform. The eLearning Advisory Committee (eLAC) recommends to the provost that UMKC undertake a feasibility study associated with moving UMKC’s Learning Management System from BlackBoard to Canvas. The study should present the risks and benefits associated with a migration, potential costs, impact on operations and final recommendations that, if warranted, would include a transition plan and timeline. During this review period, we investigated and implemented several factors involved in piloting Canvas at UMKC, including standing up an environment to begin the evaluation.

P278 – FH421 Display Addition
This is a project to design and install a simple portable display cart for presentations. During this review period, IS finalized system design and is awaiting client approval. We anticipate completing this project during the next review period.

P279 – SOE Lab Move/Changes
This project is to install typical ILE classroom equipment into SOE 129B and 034. During this review period, 034 was added to project 232 ILE upgrade list and ILE equipment was installed. System design for 129B was finalized and the upgrade was scheduled for summer break 17. This system will be installed and projected by the start of the fall semester.
Current Projects – Development Phase

IS has made good progress working with units to plan (13) IT/AV projects during this review period.

P126-Whole Foods Development
This project will provide a new Whole Foods store, a new UMKC Student Health and Counseling Center, new luxury apartments, and a new parking garage. IT/AV scope is not fully defined but IS has installed a new network utility corridor in preparation for this project, which involved removing all existing overhead cabling and installation into an underground vault. During this review period, construction started, the IT/AV budget was defined with CFM, and the project started to run over budget. This kicked off a value engineering process, which would affect IT/AV system designs at some point, but the impact is not yet clear. We anticipate the IT AV scope will be redefined during the next review period and the installation will be completed with a tentative opening date of January 2018.

P174 – SCE Educational and Research Center
This is a project to build a new multi-story building addition to Flarsheim Hall that would sit on the FH/OMB parking lot with the length of the building running east/west. IT/AV scope is undefined at this point. The project is still pending Board of Curators (BOC) approval. During this review period, the current area of focus for IT has been the possible elimination of the Old Maintenance Building, which is within the project footprint and finding a new/suitable home for CTS staff located in OMB. IS has shared space requirements with CFM and has been working with CFM to identify alternative locations with little to no luck to date. Additional space planning progress is expected in fall of 17 with the project team planning to seek BOC approval in September.

P208 – Bloch Lab Changes
This project is to relocate the existing behavioral lab from Bloch Executive Hall 102 to Bloch Heritage Hall 110, and possibly the addition of new features (Biometric measurement capability). The existing lab PC’s would be relocated to a freestanding model (similar to the Student Union) on the third floor of Bloch Executive Hall between rooms 328 and 329. During this review period, the project scope was reduced to just PC work and no longer included moving behavior lab systems from BEH to BHH. IS secured CIO approval to order and replace IS PCs in the computer lab attached to this space; Bloch submitted a request for an estimate from CFM to design the rest of the space which is pending completion.

P225- PAC Infrastructure Replacement
This project is to bring the building infrastructure up to current standards by rewiring all the voice and data jacks on all floors in the building. This building has five floors and will be rewired one floor at a time. We plan to begin this project once Cockefair Hall upgrades are complete.

P240 – SCE Student Affairs Suite
This project is part of the School of Computing and Engineering’s DST Student Services Center project. It includes a digital signage component in the lobby area and a presentation system in FH337. This presentation system will include small AV system with digital video projection system, and enhanced audio processing. During this review period, construction bids were accepted by CFM and SCE, IT/AV scope was reduced, SCE approved the overall project budget but there is still some flexibility on the IT/AV scope. Renovation in the space has begun. We anticipate the IT/AV scope will be locked in, ordered, installed and the project completed during the next review period.
P248 - Lenel to CBORD Transition
This project is to replace the existing Lenel Card Assess system in 11 buildings with CBord Card Access. Buildings include 4747 Troost, Cherry Street Garage – Mail Room, Cherry Street Garage – Police, School of Education, Flarsheim Hall, General Services Building, Hospital Hill Annex, Administrative Center, Building #71, Cherry Street Hall and Health Science Building. During this review period, we worked on setting flat component pricing for each component of card access, which will ultimately drive unit costs once we shift to that model. CFM partnered with the CBORD office to develop a detailed transition estimate to move all buildings to CBORD and individual CFM estimates for each building. We are currently working to finalize these numbers for a meeting with campus leadership on possible funding during fall 2017.

P249 - SLATE
This is a project to replace UMKC's current admission CRM vendor (Hobsons Connect) with Technolutions "Slate" CRM, as UMKC's Hobsons Connect contract has expired. Slate is marketed as a one-stop-shop for everything Admissions. This project will also include rolling in existing supplemental unit applications developed by IS allowing these apps to be retired going forward. During this review period, we attended monthly calls to ascertain how IT could assist, offered facilitation for any escalations needed by Admissions, and assisted in the implementation of imaging exports.

P251 - IS Lab Camera Upgrades
This is a project to develop lab specific designs and associated costs for converting all (14) IS computer lab environments from the Netbotz surveillance system, which is the end of the line, to the CBORD NICE platform, which is the current campus standard. During this review period, we finalized the total number of cameras needed in order to provide greater coverage with a fewer number of cameras.

P253 - PAC Display Addition
This project involves adding an electronic signage to the upstairs PAC lobby area for a Hall of Fame display. The content will be run by power point, with a possibility of switching to Four Winds at a future date. During this review period, an initial system design was completed, and updated facilities work quoted and shared with the client. This project currently pending client approval and funding.

P271 – NH 210 Conference Rm Remodel
This project is to enlarge the NH Conference room to accommodate additional seating. It includes demo south wall and door/frame to extend the conference room to use existing hallway space, build small new wall and reuse door/frame, build new wall to have one hour fire rating, conference room door should have no lock, install exit signs (one in corridor and one above door), install necessary emergency lighting, demo existing built-in book shelving repair/paint wall as needed, and Spec/purchase new conference room modular tables (2x4 rectangles) to maximize room seating.

P272 – OneDrive for Business
Project to review OneDrive as a possible Box alternative for file storage due to rising costs. This project is interconnected with the Office 365 project heavily. During this review period, we reviewed Dell’s SOW, worked with UM to clean up AD accounts, reviewed a couple different data migration tools, and began internal discussions related to timeline, costs, impact on users etc.
P273 – Office 365
UM System is to integrate current AD into O365 functions. Users will then have access to all files and servers will live in the cloud. The base requirement is that we can authenticate against current user names, meaning AD is the authoritative user name and password. The scope of this system project is to investigate the readiness of UM System to implement Microsoft Office 365. During this review period, the ISPM informed upper-level management at UMKC of the progress and worked with the UM System Project Team to address any questions or concerns from management.

P280 – SOD 209 AV Upgrade
This project is part of the School of Dentistry expansion program to Missouri Southern State University in Joplin. For this phase two project, the IT/AV scope includes upgrading the Dental School selected SOD room #209 with similar distance Ed technology as the room upgraded in phase one. During this review period, IS attended the initial project meetings, received budget expectations from client and CFM, and began the process of working with SKC (AV Integrator) on next steps related to design, estimating, and installation. We anticipate this installation will compete over winter break of 2017 with a project completion of January of 18.
TMS Support Client Experience

For each of the 693 TMS support tickets received during this review period, customers were sent a client experience survey to complete. We are converting survey results to the Net promoter customer satisfaction model to calculate our overall Net Promoter Score.

- Average NPS was >90
  - 100 Promoter survey responses
  - 2 Passive survey responses
  - 1 Detractor survey response
- ~15% of all Clients responded
ILE Classrooms, Video Conferencing, Distance Ed, and On-Demand Video

IS made great progress on ILE classroom upgrade initiatives during this review period. We also managed to keep issue resolution times low minimizing the impact on students in the classrooms. Highlights on outlined below.

- Completed technology upgrades to 29 ILE rooms to HD widescreen digital video & projection systems, enhanced audio processing with web conferencing, and voice over IP features.

- Resolved 50% of all ILE/Classroom support issues within 1 hour and 74% of all support issues within a 24-hour period.

- Partnered with CFM to design technology and physical room upgrades to Royall Hall room 111 Auditorium to have better projection systems, sound systems, infrastructure for recording, lighting, mold abatement, seating, sound treatment, carpet, and paint.

- Partnered with Desktop Support to upgrade (85) ILE desktop PCs as part of the Provost’s Workstation Replacement Program.
• Successfully supported and maintained ~370 ILE/AV systems. These systems include classrooms, conference rooms, performance spaces, collaboration spaces, teaching labs and signage systems.
• Invested ~$16k in equipment and parts to keep the campus ILE classrooms and teaching environments up and running. This includes reactive maintenance and repair initiatives such as replacing defective equipment, projector bulbs, batteries, damaged cabling, etc.
• Provided technical support for 891 new streaming videos added to Kaltura by faculty & students.
• Supported 793 hours of ITV distance learning during this review period. The chart below tracks support over the last two years.

![Hours of ITV Distance Education Supported](chart1.png)

• During this period, TMS provided support for 202 hours of recorded HSB Simulation Center events. The chart below tracks support since the Assessment lab was installed.

![Hours of HSB Simulation Center Events Supported](chart2.png)
Building Network Infrastructure

IS made great progress on ongoing infrastructure upgrade initiatives while supporting phone and data related add, move and change requests, a large number of buried cable marking requests, and support tickets. The highlights are summarized below. See Appendix “C” for a 10-year snapshot of building wiring progress.

- Finalized Category 6 infrastructure upgrades in the School of Medicine (multi-year project)
- Completed 80% of the Category 6 infrastructure upgrades in Cockefair Hall
  - We expect to complete the remaining 20% during the next review period
- Completed 10% of the Category 6 infrastructure upgrades in Scofield Hall
  - We expect to complete the remaining 90% during the next review period

**Infrastructure Upgrades**

- Completed infrastructure demo in Chemistry and Biological Sciences buildings as part of the renovation project
- In planning/design phase for the Whole Foods office space, and the Downtown Arts Campus.
- Infrastructure Services staff attended over 21 hours of training
- Completed over 168 moves, adds and changes on voice jacks, data jacks, and phones
- Resolved 133 infrastructure related trouble tickets recorded in ITSM (Remedy)
- Marked University buried cable plant locations as required by Missouri Law for One Call services 426 times
UMKC Operators

The UMKC Operator number (ext. 1000) handled ~33500 phone calls during this review period. Of those ~34K calls, users were able to self-route approximately 75% of the calls using our automated call routing tree. 25% of the calls required human interaction from campus operators.

- Developed draft client experience survey for operators that captures the customer's overall satisfaction with the interaction and categorize call types for trend development. Still in testing phase with the plan to go live during the next review period.
Appendix C: Building Network Infrastructure

Information Services Accomplishments January-June 2017
Appendix D: Network Architecture

- Installed time clocks at the Dental School
- Installed Cisco APIC-EM software for network management
- Installed Cisco Identity Services Engine for user authentication
- Upgraded Safeconnect network access control software (Res Hall Network) to latest release
- Upgraded Cisco Call Manager servers to version 11.5
- Upgraded Cisco IP Contact Center servers version 11.5
- Upgraded Cisco Unity voicemail servers version 11.5
- Upgraded Cisco Video Communication Servers (Expressway & Control) software to latest version
- Installed or upgraded several “classroom” switches as part of the ILE room upgrades
- Replaced network distribution switches in the Medical School as part of the NSF “DarWin” grant
- Replaced network distribution switches in the Health Sciences Building as part of the NSF “DarWin” grant
- Replaced network distribution switches in the Dental School as part of the NSF “DarWin” grant
- Replaced network switches in General Services Building as part of the Building Switch Refresh project
- Replaced network switches in Scofield Hall as part of the Building Switch Refresh project
- Replaced UPS batteries in 22 Telecom Rooms across IHD, General Services, Scofield Hall, Dental School & Health Sciences Building
- Installed 203 "in-room" access points in Johnson Hall residence hall
- Completed building-wide wireless network designs for Law School, Biological Sciences and Spencer Chemistry buildings
- Created wireless network for wireless door lock pilot project
- Registered & renewed various internet domain names for various departments
- Installed UPSs and network monitoring for Polycom video conference units in the Health Science Building
Appendix E: Internal Applications

Database Server Design, Implementation & Administration

Provided support to all central:

- Oracle servers
- MS SQL servers
- MySQL servers
- Filemaker servers
- CHI/HealthFacts servers
- School of Dentistry Axium servers.
- Data Warehouse Oracle servers
- CBORD Oracle server patches and upgrades

Software Design and Development

The following new software/solutions were rolled out during this period:

- New University Libraries website
- Salesforce MOU/MOA CRM
- myCPE - School of Education CE eCommerce application
- SEARCH online application
- uAchieve data archive tables

Software enhancements and maintenance was provided for the following custom software applications & websites during this period:

- Bloch School websites
- Honors College application
- UM Research Resource
- Blackboard Snapshot
- Blackboard User Request System
- IPh.D. Supplementary Application
- ALEKS
- UMKC Attendance
- Roowriter
- IS Change Management & Outages
- Commencement RSVP website
- eLearning Tracker
- Starfish Connect
- Midwest Dental Conference site
- IS Labs Shift Tracking System
- Blackboard User Request System
- Communiversity
- Admissions Orientation Registration Website
- SBS Studio Logs
• UMKC Polls
• Campus Police Property Registration Website
• Moodle
• Exit Exams
• UMKC QR
• Outlook Photos
• Consulting Activity Reporting site.
• WebEx
• RooEval
• Studio Abroad
• Civitas Illume
• UR-Linked
• Canvas

Software Administration
• Served as technical contact for the CourseLeaf Catalog software
• WordPress management, setup and administration.
• Trumba Calendar management, setup and administration.
• Created and updated multiple distribution lists.
• Regonline eCommerce.
• Weekly termination reports processing.

Scanning Services
• Generated several detailed reports for departments based on their evaluation scan data.
Appendix F: Information Services Security

We upgraded the edge campus firewall with the newest generation of equipment, enabling higher traffic speeds for the campus Internet connection. The original traffic limit was in the five Gigabit/sec range, the new limit is in the 10 to 15 Gigabit range.

The campus data center firewall was replaced with the original campus edge firewall, allowing a significant speed increase for traffic through the data center. The original limit was in the 2.5 Gigabit/sec range, with the extra filtering options disabled on the migrated firewalls, we can get 8 to 10 Gigabit/sec.

Phishing and Spam reporting buttons were deployed to most campus Windows computers. This reports the junk messages to Microsoft to help better tune the spam and junk filtering of our email system, and to help close down the most common spam sources.

We worked to disabled a vulnerable Windows file sharing protocol as recommended by Microsoft. This further reduces the vulnerability surface of the campus.

We provided input and assistance with the first round of Office 365 planning for Faculty and Staff use.

New upgraded VPN clients were created and published for UMKC remote users. The connection update improves VPN security, and in the case of Windows users, helps overcome situations where VPN to UMKC may be blocked.

We assisted with an issue on a printer firmware vulnerability that caused printers to be unavailable under certain network conditions.
Appendix G: MOUs

Bloch School of Management

IS continues to provide IT support and services for the Bloch School of Management. Listed below is an overview of the services provided to Bloch over the last 6 months.

- Technical support for special events, conferences, career fairs, etc. continues to be a primary function of full time IS and student staff.
  - Bloch Executive Hall averages 5 to 10 events each week.
    - These events range in size from 10-200 attendees.
  - 311 events have been scheduled so far in 2017.
    - 116 of those have requested/were provided support by Bloch IS staff.
- Bloch IS continues to publish a newsletter that provides all Bloch faculty and staff with campus wide IS updates, Bloch specific updates, tips and tricks, Client experience results and contact information.
- Bloch IS developed and deployed an operating cost reduction plan now runs on 100% rebuilt lamp assemblies.
  - OEM raw lamps are ordered and failed lamp assemblies are rebuilt.
    - Lamp life is identical.
    - Lamp cost has been reduced by 70% annually.
- Bloch IS continues to manage the contracted relationship with SKC (Audiovisual integrator).
  - SKC currently functions as an intermediary between UMKC and equipment vendors for replacement and repair.
  - Notable pieces of equipment replaced/pulled for repairs have included:
    - Sennheiser Microphone Antenna Distribution amplifier.
    - Extron Audio Amplifier.
    - Crestron Scaler Power Supplies (4).
    - Crestron Room Controller.
- Bloch IS maintains a close relationship with Marketing in relation to digital signage (Four Winds).
  - Content editing and deployment to Bloch’s FWI players is handled by IS.
  - FWI hardware/software functionality is a responsibility of Bloch IS.
- Bloch IS staff performs daily preventive maintenance checks in all Bloch classroom spaces prior to the start of morning classes daily to minimize disruptions.
  - On top of standard technology issue reporting methods, Bloch utilizes room logs to allow our Clients to ask questions, request training and report issues. Information from these are collected during these maintenance checks.
- Bloch technicians support both Heritage and Executive Halls and are available to assist Clients during all class hours.
  - Technicians are scheduled in both buildings based on class schedule.
    - This ensures we meet Client support expectations as well as our financial obligations in relation to labor spend.
  - Technicians are scheduled on weekends when classes/events dictate.
- Bloch IS continues to put a strong emphasis on Client Experience.
  - 26% of closed tickets resulted in a survey submission by the Client.
  - NPS for Bloch IS from 1/1/2017 to 7/1/2017 was 100.
Information Services Accomplishments January-June 2017
Information Services also met regularly with the School of Management for various projects and initiatives. Listed below are a few of the accomplishments IS successfully achieved over the last 6 months.

- Deployed Lanschool® in Bloch Executive Hall rooms 211 and 413 to help facilitate collaborative learning experiences
- Added Skype/Webex capability to Bloch Executive Hall room 419
- Supported the Association to Advance Collegiate Schools of Business with their technology needs during their review
- Migrated all network printers from a Bloch print server to the campus print server, eliminating the need for duplicate servers and reducing support costs by aligning Bloch processes with the central IS team
- VITA Tax Program. This program offers free tax help to students needing assistance in preparing their own tax returns. IS supported the technology needs for this program in Bloch 005
- Worked with Bloch Faculty and Staff to ensure their many software needs were met.
- Supported student printing needs in the BHH 005 computer classroom by keeping supplies on hand and printers ready for use. Over 1,660 print jobs were printed in BHH 005, totaling over 9,900 pages
- 469 individuals used the BHH 005 computer classroom during this period
- Cleared out back two sections of the BHH 110 computer lab in preparation for renovations
- Supported student printing needs in the BHH 005 computer classroom by keeping supplies on hand and printers ready for use. Over 1,660 print jobs were printed in BHH 005, totaling over 9,900 pages
- 469 individuals used the BHH 005 computer classroom during this period
- Cleared out back two sections of the BHH 110 computer lab in preparation for renovations

School of Nursing and Health Sciences (SoNHS) and School of Pharmacy

IS continues to work with Nursing to support their IT needs, including regular meetings with the IT Ops Committee. As new projects come up, this allows us to provide guidance and technical resources to ensure their goals are met. Below are some of the projects IS was involved in.

- IS has provided daily room checks and as-needed technical assistance via ITSM, phone and direct reports.
- Laerdal SimView “Simulation lab” IS provided on-demand operational assistance in this space, as well as on-call technical support when needed.
- IS has documented and shared budgetary estimates to maintain support for KBPort equipment in the "SON Dispensing lab”.
- IS has initiated negotiations to reduce the cost of maintaining support in the Laerdal "Simulation Lab"
- After the installation phase of P228 4th floor “SON dispensing lab”, IS staff have provided support on demand.
- IS provided budgetary estimates to maintain technology infrastructure.
Listed below are a few of the projects we worked on with the Schools of Pharmacy and Nursing and Health Sciences.

**ExamSoft.** IS has fully implemented ExamSoft and Pharmacy is successfully using this to streamline their testing process.

**NiaRx.** IS worked with Pharmacy to implement NiaRX, which is a web-based software learning platform offering augmentable and escalating care-planning case studies for students and faculty of healthcare professions. Pharmacy is expected to start using this solution in the Fall semester.

**Laerdal.** Started planning for future Laerdal SimView upgrade. Laerdal is a critical system used by many of the Academic groups located on Hospital Hill.

IS continues to work with Pharmacy to support their IT needs, including regular meetings with the IT Ops Committee. As new projects come up, this allows us to provide guidance and technical resources to ensure their goals are met. Below are some of the projects IS was involved in.

- IS has provided daily room checks and as-needed technical assistance via ITSM, phone and direct report.
- IS provided budgetary estimates to maintain technology infrastructure.
- IS continued to provide technical support for multiple campus locations, including the main facility at HSB, the MU location, as well as the site on the Springfield campus, and provided daily coordination/support for distance courses between UMKC, MU and MSU.
- IS initiated regular internal meetings between technical service staff at SoP campuses and design engineers to expedite solutions for persistent problems and help inform future infrastructure designs.
- IS worked internally and with MOREnet to resolve dialing and connection modality with upgraded VC backbone equipment.
- IS initiated a project to examine a potential conversion from videoconferencing hardware to software based platforms. Such a conversion may drastically reduce system maintenance costs and may introduce support efficiencies.
- Worked with IS project teams on the renovations project for Biological Sciences building. This involved moving all labs and faculty equipment from the various floors to other spaces to accommodate the renovations.
- Upgraded the computer that controls the departments Gel Logic 200 camera. This required moving the camera to a newer iMac and configuring the use of MicroManager, a software provided free of charge from NIH, to control the camera and the images it takes.
School of Computing and Engineering (SCE)

Support Services worked with SCE and the IT Ops Committee Chair to review and plan lab updates including any new or changes to software for both the physical and remote labs for the Fall semester. After much discussion, software will be purchased, packaged and configured over the summer months for 100+ software titles currently in use at SCE. These committee meetings are vital, particularly with SCE’s continually changing lab environments and their expanding curriculum. Additionally, Support Services accomplished the following:

- Setup 4 Linux based Alienware GPU systems for the Multimedia Computing Lab
- Configured 4 specialized Precision 3620 workstations, which are very high-end research systems
- Staffed School of Computing and Engineering labs for extended hours during fall semester midterms and finals
- Supported student printing. Over 74,100 print jobs were printed in the SCE computer labs located in rooms 364, 460, 462, 463, and 464, totaling almost 644,700 pages
- 1,396 individuals used the general-use student computer labs during this time period

College of Arts and Sciences (A&S)

- Worked with Communication Studies to provide day-to-day management of the 19-seat Apple computer lab in Haag 103. This required the coordination and installation of 19 data jacks and the creation of a new up-to-date image. Historically, this support was provided directly by faculty.
- Consulted with new Geosciences Professor on the creation of a new research lab. This lab includes one high-powered GPU workstation and two other systems for use by graduate research assistants. This lab space also contains an interactive collaborative meeting space.

School of Education (SoE)

- IS performed a major redesign of SoE computer labs. This included moving a computer based teaching lab from room 034 to room 129B. As a result of this change the IS computer lab in 129B had to removed and the computers repurposed in another lab.
- Assisted the counseling group located within the School of Education with options on scheduling and record keeping of sessions. This includes consulting on software, hardware, and the security concerns associated with the storage of sensitive data.
School of Law

Information Services worked with the IT Ops Committee chair throughout the year on several key projects:

- **RooLaw.** Over the last 6 months IS has automated the entire data import process for this key service. This will not only greatly reduce staff time but also provide more consistent and reliable data. This significant project involved several groups within IS.
- **Server OS Upgrades.** Updated the Tax server to 2016 to stay on a supported OS.
- **ExamSoft.** Worked with Law and ExamSoft to integrate Shibboleth for authentication. This will streamline the login process for both students and faculty.
- **Printers.** Migrated all network printers from a Law print server to the campus print server. This eliminated the need for duplicate servers and reduces support costs by aligning Law processes with the central IS team.

Conservatory of Music and Dance

With the support of Interim Dean Petrella, IS was able to utilize existing equipment in the Conservatory and establish a small video editing lab.

National Museum of Toys/Miniatures

- Assisted with an upgrade to the Toy and Miniature Museum’s QuickBooks installation as well as their point of sale systems.
- Conducted an upgrade of PastPerfect, a software package used to inventory and track museum exhibits, to the latest version to be compatible with Windows 10.
- Improved the workflow and upgraded various computer to Windows 10.

Residence Halls

- Supported student-printing needs in the Residence Hall computer labs. Over 17,700 print jobs were printed in the Oak Place and Johnson Hall computer labs, totaling over 101,000 pages.
- 694 individuals used these Residence Hall computer labs during this time period
• **PCI.** KCUR has been working closely with UM’s Treasury Office, UMKC Security team and Allegiance Software to make changes. KCUR added an additional a new secure computer to manage certain processes.

• **Radio Data System (RDS).** KCUR has been embedding RDS data in the FM broadcast for many years but with recent additions, they will be able to provide real time updates to this data. KCUR will now get updates from NPR on programing and then send this RDS data out to the listeners. In addition, KCUR will be able to provide specific messages for local shows, newscasts, etc. This is a larger project that should be completed by 7/31/17.

• **Kansas News Service (KNS).** KCUR has recently entered into a joint agreement with KNS to enhance their coverage in Kansas. As part of this process IS facilitated direct networking connections to Topeka, installed and configured new equipment, and developed processes for remote management of this extension office. As part of this 5 addition staff were added to KCUR.

• **Server OS Updates.** In the last 6 months, KCUR has moved two virtual servers to the newest Operating System. KCUR’s streaming server was rebuilt and then the primary file server and Allegiance Traffic server was rebuilt – both with little or no downtime.

---

**Appendix H: Academic Enhancement Accomplishments**

School of Education
FaCET Conference Single camera event coverage
Dept. of Urban Education event (record and produce two Student teacher events)

School of Biological Sciences
Edit session with Loretta Klamm (use of microscope)
Two new lab demo recordings with Loretta Klamm
KC life sciences 2 camera (record two events)

School of Pharmacy
Lab Procedure re-shoots for Dr. McQueen
Pharmacy recording two camera Pharmacy roll play video

Department Of Diversity, Equity
Annual Freedom Breakfast the African-American Student Union (TAASU)
Record Students for Pride Breakfast and one alum
Record Pride Breakfast Alumni event
Cesar Chavez Lecture record

Vice Chancellors Office
Academic Portfolio Review sessions with rpkGROUP record and produce
Upcoming Budget Forum record and stream
Chairs and Directors meeting (4 of these)
Open Faculty Meeting with Provost (two locations)
Record Consultant talk (Single camera event coverage)
Open Faculty Meeting Live streaming requested

Bloch School of Management
Record Block Class intro
Record First Wednesdays (3 during this period)
Guest speaker: Jon Hosler, Product Manager at Garmin International, Inc. Block Class
Wai Lee Bloch School class lecture
Record Laura Beth Yates Block Class
Record Davyeon Ross Block Class

School of Economics
Economics Club lecture SU Theater (2 times)
Meeting to discuss a future production for Dept. of Economics Conference

School of Education
Community of Scholars Event
2017 SOE Urban Education and Community Forum Single Event record and live stream
SIDLIT Conference – Video Production and animation

Department of Black Studies
Saturday morning recording for upcoming Black Studies courses
Closing Remarks/Images recorded for above (in edit suite)
Record gallery tour for above exhibition for VTS (Visual Training Strategy)

Chancellor’s Office
McCownGordon Construction Company meeting (Stream and record)
Troy Lillebo Video fix
Record and stream all commencement ceremonies Swinney/White Hall/ Kauffman PAC

School of Nursing
SNA presentations (record two presentations/deliver footage for marketing campaign.
SNA Meeting - Grad Presentations (record event)
Dean's Message w/ Videographer Dean Cary new student welcome
Reshoot Dean Cary’s welcome
MEC Wheel version 2 (re-animate and voice over)

School of Computing and Engineering
“Nanotechnology for Energy Saving, Generation, and Storage” (record event)

Conservatory of Music and Dance
Record/stream first night of Opera (produce-finished show for Dept.)
Record/stream second night of Opera (produce-finished show for Dept.)
MCOMM
Student recording for marketing group (four separate shoots with postproduction)

Swinney Recreation
Swinney Seniors video (record and produce over 3 days)

School of Law
Record Dean Suni Program School of Law
Assist/Test SU 401 audio/video system with law school folks for their event

Department of History
Diastole Event with A. Bergerson (multi cam record and provide footage)

School of Dentistry
White Coat Ceremony (Set up/record and produce)

Multi-cultural Student Affairs
Women of Color Leadership Conference (record and produce)

Miscellaneous Accomplishments
AVID and Nexis Updates
Appendix I: Foundation Services

IS Foundation Services (ISFS) provides secure, professionally managed data centers to meet the growing information technology (IT) needs of academic and administrative units at UMKC. ISFS serves as the primary system administrators for 400+ servers as well as providing assistance and technical support for campus IT Liaisons.

Storage/SAN/Backup

- Upgraded our primary VM storage (Nimble) to Nimble OS 3.8.1.
- Upgraded CommVault to version 11, shortening our backup time by 25%.

ITSM (Remedy)

- As part of a UM System shared initiative, ISFS hosted the ITSM infrastructure and exceeded the goal of 99.9% uptime.
- Provisioned new Remedy 9 development, Q&A, and production environments in preparation for Remedy upgrade.

Server Virtualization

- Upgraded vSphere environment to 5.5U Patch 10, and began planning vSphere upgrade to 6.5, scheduled for August.
- Provisioned approximately 20 new virtual servers.
- Continued to target physical server infrastructure for virtualization by working with IT Liaisons to retire aging hardware.
- Continued utilizing Amazon Web Service (AWS) including VMs in EC2, and data in S3 and Glacier.

Miscellaneous

- Remedied and closed 616 Remedy tickets. Ticket completion times continue to be held low.
- Rebuilt SCE Tux cluster, expected go live date in August.
- Multiple server OS (Windows and Linux) and application upgrades including Redcap, Stash, Dropbox, Confluence, JIRA, Bit Bucket, ColdFusion, Cadence, Synopsys and WordPress.
- Shibbolized dozens of websites and multiple new services allowing single sign-on.
Began planning Active Directory Domain Controller upgrades from Server 2012R2 to Server 2016.

Developed Linux based OS image for future WordPress sites.

Appendix J: Instructional Technologies (ITS)

ITS worked with Blackboard and other campus groups to move our Blackboard instance from Blackboard’s Managed Hosted environment to their SaaS (software-as-a-service, cloud-hosted) environment during the last half of 2016, and completed the work in January 2017. The migration resulted in several Blackboard outages during the early part of the spring 2017 semester, but we worked with Blackboard on remediation steps, and it has been stable since then. Because of our issues with this migration, ITS, in partnership with UMKC Online, began looking at the Canvas LMS as a possible replacement for Blackboard in the future. Proctoring products like Respondus Monitor, and video services such as Panopto and Kaltura, continued to be popular among faculty and students. Emerging technologies in the response-ware realm prompted us to develop and implement a pilot of Top Hat, a potential replacement for Turning Technologies Clicker products. This pilot will run through fall semester 2017.

Blackboard Course and Organization Usage (January 2017 through June 2017)

Foliotek

- Four School of Dentistry programs (web access).
- One School of Nursing program (Bb LTI integration).
- 820 users in total.
- 98 new registrations (Jan-June 2017).
- No technical issues reported.

<table>
<thead>
<tr>
<th>Program</th>
<th>New Registrations Jan-Jun 2017</th>
<th>Total Number of Students</th>
</tr>
</thead>
<tbody>
<tr>
<td>BSDH Clinical Entry</td>
<td>30</td>
<td>146</td>
</tr>
<tr>
<td>BSDH Degree Completion</td>
<td>3</td>
<td>30</td>
</tr>
<tr>
<td>Dental Hygiene Graduates</td>
<td>6</td>
<td>24</td>
</tr>
<tr>
<td>Predoctoral</td>
<td>1</td>
<td>432</td>
</tr>
<tr>
<td>SON</td>
<td>58</td>
<td>188</td>
</tr>
</tbody>
</table>

Blackboard Collaborate

- No major service interruptions reported.
- No system statistics available for Ultra usage at this moment.
Usage Breakdown (Classic Environment)

<table>
<thead>
<tr>
<th></th>
<th>Jul-Dec 2016</th>
<th>Jan-Jun 2017</th>
<th>Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sessions Launched</td>
<td>3999</td>
<td>3109</td>
<td>-22%</td>
</tr>
<tr>
<td>Recordings</td>
<td>748</td>
<td>696</td>
<td>-7%</td>
</tr>
<tr>
<td>Max Concurrent Sessions</td>
<td>10</td>
<td>10</td>
<td>--</td>
</tr>
<tr>
<td>Attendees</td>
<td>18394</td>
<td>15369</td>
<td>-16%</td>
</tr>
<tr>
<td>Mobile Access</td>
<td>959</td>
<td>1361</td>
<td>+42%</td>
</tr>
<tr>
<td>Desktop Access</td>
<td>16671</td>
<td>12602</td>
<td>-24%</td>
</tr>
<tr>
<td>Average Sessions Launched Monthly</td>
<td>666</td>
<td>518</td>
<td>-22%</td>
</tr>
<tr>
<td>Average Attendees Monthly</td>
<td>3066</td>
<td>2561</td>
<td>-16%</td>
</tr>
</tbody>
</table>

VoiceThread
- 46 Bb courses/organizations unitized or tested VT during Jan-Jun 2017.
- 929 VT created by both instructors and students.
- No major service technical problem reported. Most cases were user error or hardware issue.

Turning Technologies (Clickers)
- 9500+ student registration accumulated (handheld clickers or/and mobile devices).
- 70+ ILS Classrooms are now TT enabled.
- Software Version in ILE classroom 5.4
- The Bb building block topped working after a system update. Students were asked to re-register.
- Top Hat will be piloted in FS2017 as a potential replacement of TurningPoint.

RedCAP
- No major issues reported.

<table>
<thead>
<tr>
<th></th>
<th>By Dec 2016</th>
<th>By Jun 2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>Projects Total</td>
<td>383</td>
<td>449</td>
</tr>
<tr>
<td>Production Type</td>
<td>142</td>
<td>163</td>
</tr>
<tr>
<td>Development Type</td>
<td>226</td>
<td>268</td>
</tr>
<tr>
<td>Active Users</td>
<td>379</td>
<td>422</td>
</tr>
<tr>
<td>Survey responses</td>
<td>14464</td>
<td>20317</td>
</tr>
</tbody>
</table>

WebEx
- No major system issue reported.
- Current host seats limit 3301.

Information Services Accomplishments January-June 2017
### New Users

<table>
<thead>
<tr>
<th></th>
<th>January</th>
<th>June</th>
<th>-172%</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Total Users</strong></td>
<td>304</td>
<td>424</td>
<td>+39%</td>
</tr>
<tr>
<td><strong>Meetings</strong></td>
<td>1186</td>
<td>1104</td>
<td>-7%</td>
</tr>
<tr>
<td><strong>Total Duration (minutes)</strong></td>
<td>58278</td>
<td>53907</td>
<td>-7%</td>
</tr>
<tr>
<td><strong>Total Attendee</strong></td>
<td>2967</td>
<td>2984</td>
<td>+0.5%</td>
</tr>
<tr>
<td><strong>Teleconference (minutes)</strong></td>
<td>67209</td>
<td>42443</td>
<td>-37%</td>
</tr>
<tr>
<td><strong>VoIP</strong></td>
<td>58156</td>
<td>72613</td>
<td>+25%</td>
</tr>
</tbody>
</table>

### Panopto

UMKC started using Panopto for all classes during the fall 2016 semester. Panopto data is collected for usage, user access, recording counts, and more.

#### User Viewing Usage:

<table>
<thead>
<tr>
<th>Number of users</th>
<th>Minutes viewed</th>
<th>Number of sessions viewed</th>
</tr>
</thead>
<tbody>
<tr>
<td>8188</td>
<td>3774739</td>
<td>108924</td>
</tr>
</tbody>
</table>

#### User Creation Usage:

<table>
<thead>
<tr>
<th>Number of users</th>
<th>Minutes created</th>
<th>Number of sessions created</th>
</tr>
</thead>
<tbody>
<tr>
<td>800</td>
<td>183034</td>
<td>5272</td>
</tr>
</tbody>
</table>

#### Folder usage:

<table>
<thead>
<tr>
<th>Number of folders *</th>
<th>Views</th>
<th>Unique Viewers</th>
<th>Minutes viewed</th>
</tr>
</thead>
<tbody>
<tr>
<td>903</td>
<td>189153</td>
<td>16913</td>
<td>3742416</td>
</tr>
</tbody>
</table>

#### Session Usage:

<table>
<thead>
<tr>
<th>Number of sessions **</th>
<th>Views</th>
<th>Unique Viewers</th>
<th>Minutes viewed</th>
</tr>
</thead>
<tbody>
<tr>
<td>6984</td>
<td>189153</td>
<td>106155</td>
<td>3742416</td>
</tr>
</tbody>
</table>

*One folder is one course site
**One session is one recording

### Moodle

Active course and organization sites: 82
SharePoint

- UMKC has 48 sites running for faculty, staff and research purposes. All new SharePoint users are now encouraged to use UMKC box.
- Total unique users: 3504

ListServ

ListServ Usage

<table>
<thead>
<tr>
<th>Term</th>
<th>Lists</th>
<th>Subscribers</th>
<th>Postings</th>
<th>Emails Sent (millions)</th>
</tr>
</thead>
<tbody>
<tr>
<td>SP 2017</td>
<td>563</td>
<td>241,724</td>
<td>28,768</td>
<td>2,718,112</td>
</tr>
</tbody>
</table>

Customer Support

Requests for support to ITS can come through multiple avenues. Phone calls during business hours, as well as emails and requests made through the Blackboard Request System are triaged and addressed by the ITS Help Desk and full-time ITS staff. The table below represents these requests for support that were subsequently logged into the ITSM ticketing system over the last ten quarters.

<table>
<thead>
<tr>
<th>Time Period</th>
<th>Number of Remedy Tickets Handled by ITS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q1 &amp; Q2 2015</td>
<td>967</td>
</tr>
<tr>
<td>Q3 &amp; Q4 2015</td>
<td>945</td>
</tr>
<tr>
<td>Q1 &amp; Q2 2016</td>
<td>1255</td>
</tr>
<tr>
<td>Q3 &amp; Q4 2016</td>
<td>741</td>
</tr>
<tr>
<td>Q1 &amp; Q2 2017</td>
<td>852</td>
</tr>
</tbody>
</table>

Blackboard 24x7 Help Desk

Between January 2017 and June 30th, the Blackboard 24x7 help desk fielded 1748 requests for support from UMKC clients, resolving approximately 70% of issues they received, and escalating 30% of issues back to ITS for resolution.

<table>
<thead>
<tr>
<th>Status</th>
<th>Jan</th>
<th>Feb</th>
<th>Mar</th>
<th>Apr</th>
<th>Jun</th>
<th>Jul</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Resolved by Blackboard Help Desk</td>
<td>186</td>
<td>112</td>
<td>143</td>
<td>86</td>
<td>93</td>
<td>115</td>
<td>735</td>
</tr>
<tr>
<td>Escalated to ITS</td>
<td>64</td>
<td>48</td>
<td>54</td>
<td>41</td>
<td>27</td>
<td>22</td>
<td>256</td>
</tr>
<tr>
<td>Total</td>
<td>250</td>
<td>160</td>
<td>197</td>
<td>127</td>
<td>120</td>
<td>137</td>
<td>991</td>
</tr>
</tbody>
</table>