July – December 2019

Accomplishments Report
Information Services

UMKC

Contents

Introduction

MISSION

We are a strategic asset for UMKC's missions of leading in health sciences; deepening and expanding strength in the visual and performing arts; developing a professional workforce and collaborating in urban issues and education; and creating a vibrant learning and campus life experience.

2019 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
- 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
- UM System IT integration where appropriate

2019 IS PROJECT LIST & POINT PERSON

- Campus Building Security – Guggenmos/Technology Management Services
- ILE Classroom Lifecycle Upgrades Phase 4 – Guggenmos/Technology Management Services
- Active Directory Consolidation – Guggenmos/Technology Management Services
- Expansion of wireless coverage – 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
- Implement Amazon Web Services Enterprise Firewall – Malyn/Security
- Google Cloud Platform – Magrone/Foundation Services
- Distribution List Management – Kurup/Information Access
- Generic/Resource Account Management – Kurup/Information Access
- IT Budget in the RIM model – Collins/Goodenow/Guggenmos/Administration

2019 Shared Services Project List

- Accounts Management – Goodenow/Pottebaum/Kurup – Information Services
- Establish Enterprise Architecture – Schonemann/ Network Architecture
- UM Network Architecture – Schonemann/Network Architecture
- IT Transformation projects – Goodenow/All IS Departments
  - Security
  - Applications and Development (Cathy)
  - Finance (Beth)
  - Infrastructure (Andy)
  - Remote Work (Jane)
  - Research (Mark)

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 2019.

Remote Support fielded **20,443** requests for help via phone, emails, and online web submissions.

IS coordinated the purchase of over $3,545,000 worth of IT hardware and software, including computers, tablets, printers, peripherals, specialty systems, software, web services, subscriptions, service warranties, and maintenance agreements. This represents a 61% increase in total spend over the same period one year ago when $2,205,000 worth of products and services were purchased. Software purchases increased by 45% as measured by spend, totaling a little of more than $2,484,000. Hardware purchases of roughly $1,060,000 reflect a substantial increase of 75% over the previous period.

Support Services finished work on the UM-AD migration.   This project involves moving every user account from a local UMKC domain to a shared UM System user domain. Over a number of years the campus will reduce costs, strengthen the support infrastructure and increase security.

TMS successfully completed 23 ILE/AV projects during this time frame. These systems include classrooms, conference rooms, performance spaces, collaboration spaces, teaching labs, and signage systems. 16 ILE/AV projects are ongoing with seven new projects planned for next year. 1946 new streaming media entries (videos, images and audio clips), were added to Kaltura by faculty and/or students. 777 hours of ITV distance learning was supported during this review period.

The Project Management and Infrastructure Services departments worked a number of high profile projects and took on a larger role both for the UM system and non-IT units at UMKC. Members of the TMs, PM and Infrastructure Services team took a larger role in the Campus Security team.

Efforts of the Information Access (IA) Division were notable in many areas including research and software. IA spent significant amounts of time working the UM System AD projects, Oracle contracting and reviews, and rewriting upgrading custom applications for the campus with the latest technologies/frameworks. IA has started a partnership with the other UM System schools. UM Dev Apps is a collaboration of programmers from UMSL, MST, UMKC and UMC who have agreed to provide a minimum number of hours each quarter from programmers to work on projects supporting multiple campuses.

Information Access continues provide scanning services for the campus supporting almost 500 different examinations for ten academic units. IT worked on 57 unique custom web application for the campus in the current timeframe of this report.

Foundation Services hosted over 400 servers in our local data centers or via Amazon Web Services. The same group resolved over 550+ tickets from the campus for system administration requests.

Networking has taken significant steps to upgrade the UMKC network to a "spine" design. These changes provide additional redundancy and flexibility for the campus network as part of a long term plan to improve the campus network.

Looking forward, Information Services is establishing new long range staffing and budget planning processes. IS is exploring new services and offerings to streamline the service and offerings for students, faculty, staff and the entire UMKC community. We are finalizing a cloud first strategy and updating the Information Services strategic plan.

Support Services

Highlights and key initiatives

UM-AD Migration

System-wide IT is currently engaged in a project to consolidate each of the University campuses user accounts into a single, shared domain. This is an effort that will reduce costs, strengthen support infrastructure, increase security, and result in a more efficient IT environment. This consolidation will ease the adoption of cloud services, off-the-shelf software, and promote the sharing of common resources system-wide. As part of this initiative Information Services played a key role in ensuring success at UMKC. A few of these activities include:

- Migrated 100% of Faculty, Staff, and Students to UM-AD Domain
- Updated multiple online resources and FAQ to support the migration process
- Updated default login domain on all UMKC computers to simplify login process
- Expanded remote staffing levels by cross-training existing staff during the user migrations to assist Faculty, Staff, and Students.
- Participating in weekly System-wide calls

Office 365

UM System is currently migrating on premise services to Office 365. Users will then have access to all files and servers that will live in the cloud. During this review period, planning for MFA implementation began, and employee accounts were synced with O365. UMKC project team members coordinated campus communication, including emails, web page creation and edits, and developed support processes and documentation related to new services and changes.

Re-aligning IT Services Agreements

During the end of CY19 IS worked with Academic Units across campus to review their custom services. This ensures that IS can provide the services needed for each unit and that expectations on service levels are being met or exceeded.

IS continues to work with Administrative units to implement RIM and have a consistent process across campus units.

Cherwell

During this 6 month period continued work on Cherwell was made. One of the larger projects was the completion of the 9.6 upgrade. IS created additional specifics to streamline the request process from Faculty, Students, and Staff.

IS started a new process to completely revamp the Network and Infrastructure "Moves, Adds, Changes" process, which until now has been running on custom forms.

Workstation Replacement Program

The annual Workstation Replacement Program (WRP) continued in FY20 with the $250 subsidy for new computers. Combined with the reduced volume-pricing for standard University systems, 408 systems were purchased at a combined savings of $11,950 for UMKC departments. The bulk ordering also saved IS Procurement an estimated 102 man-hours of consulting and order processing time.

Windows 10

IS has completed the Windows 7 -> Windows 10 Migration with all systems either being upgraded or moved to off network.

We continue to perform Windows 10 to Windows 10 build upgrades to keep our computing environment updated and stable. We have standardized on doing these upgrades annually to align with the major upgrades that Microsoft is releasing. Over the last 6 months over 650 computers were upgraded. These upgrades are done over the network with limited Faculty/Staff downtime.

Mac OS

Over the last 6 months, the campus standard has shifted to Mac OS 10.15. The support team built new processes to support this new version, including improved use of Apple's Device Enrollment Program to improve security of UMKC owned Apple products.

In addition, we performed multiple JAMF upgrades, which is the back-end solution that enables us to image and deploy software over the network. The imaging process was reworked to allow for faster imaging with fewer manual touches.

Support Services – Customer Requests

During the last 6 months 2019, the amount of support requests received fluctuated with the academic calendar, however total support requests received were higher than in the previous 3 years due to an increase in requests submitted via phone and email during September and October.

Tickets by Category

Category
- O365
- Computer
- Help!
- Software
- Account
- Exchange
- Secure Authentication
- Printing
- Wireless

1.03K (15.01%)
0.93K (13.47%)
0.91K (13.28%)
0.73K (10.59%)
0.64K (9.24%)
0.63K (9.08%)
0.51K (7.4%)
0.31K (4.55%)
0.2K (2.91%)
0.09K (1.31%)
0.02K (0.35%)

Customer Requests Per Month
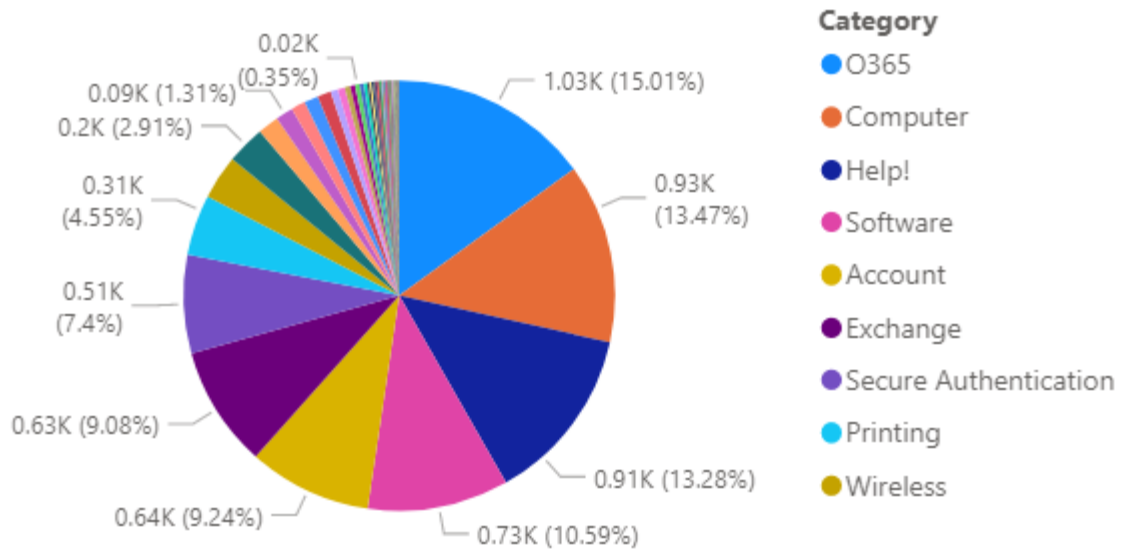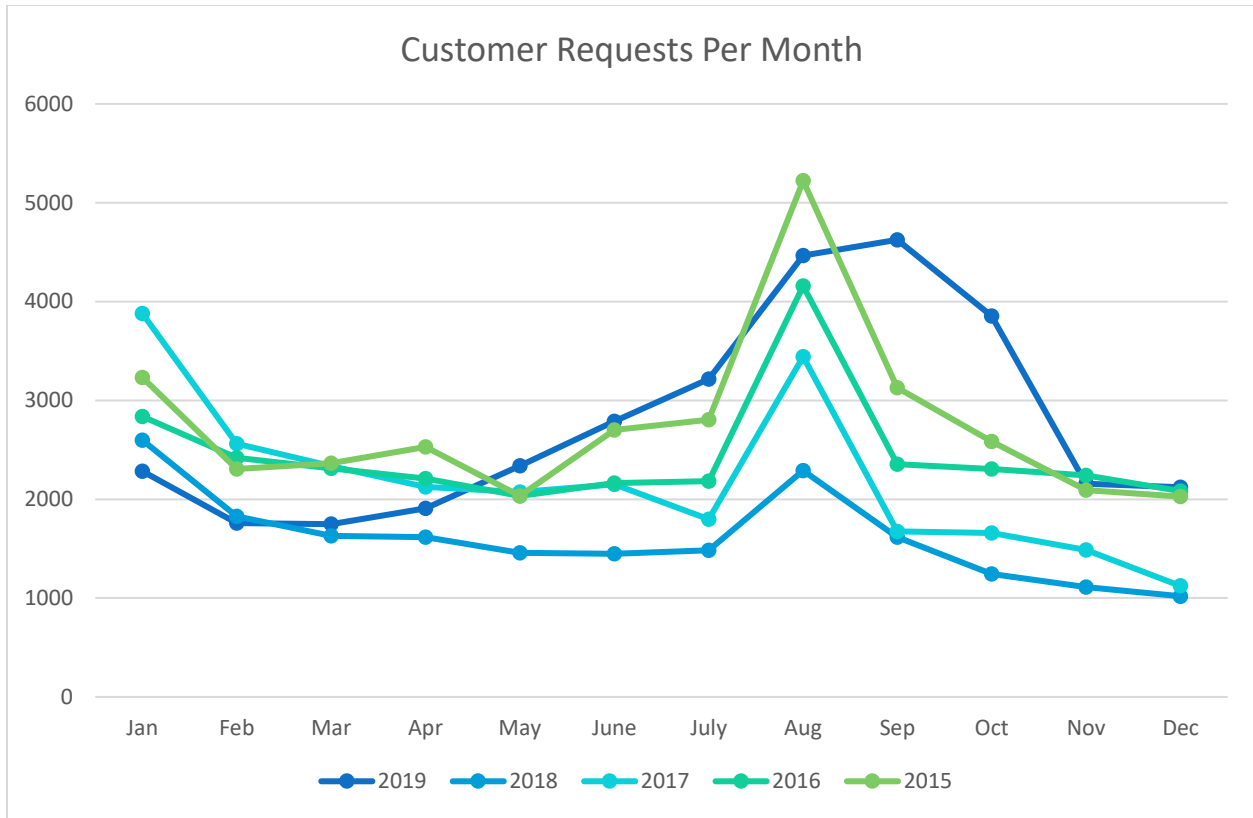
Customer Requests for Five Years

Year	Jan	Feb	Mar	Apr	May	June	July	Aug	Sep	Oct	Nov	Dec	Total
2019	2284	1760	1748	1909	2340	2788	3216	4466	4625	3855	2158	2123	33,272
2018	2598	1827	1629	1616	1458	1449	1485	2291	1616	1244	1111	1019	19,343
2017	3879	2562	2335	2125	2072	2152	1799	3444	1676	1658	1487	1123	26,312
2016	2837	2419	2314	2209	2034	2165	2183	4158	2354	2307	2241	2083	29,304
2015	3231	2306	2364	2530	2035	2702	2805	5222	3129	2583	2093	2027	33,027
Total	14829	10874	10390	10389	9939	11256	11488	19581	13400	11647	9090	8375	141,258

- Customer satisfaction continues to remain extremely high. Over the last six months, Support Services has a **99.21%** Very Satisfied rating. The following chart represents customer satisfaction data collected from **496** surveys closed by Support Services for the period of July 2019 through December 2019.

Average Survey Score by Month
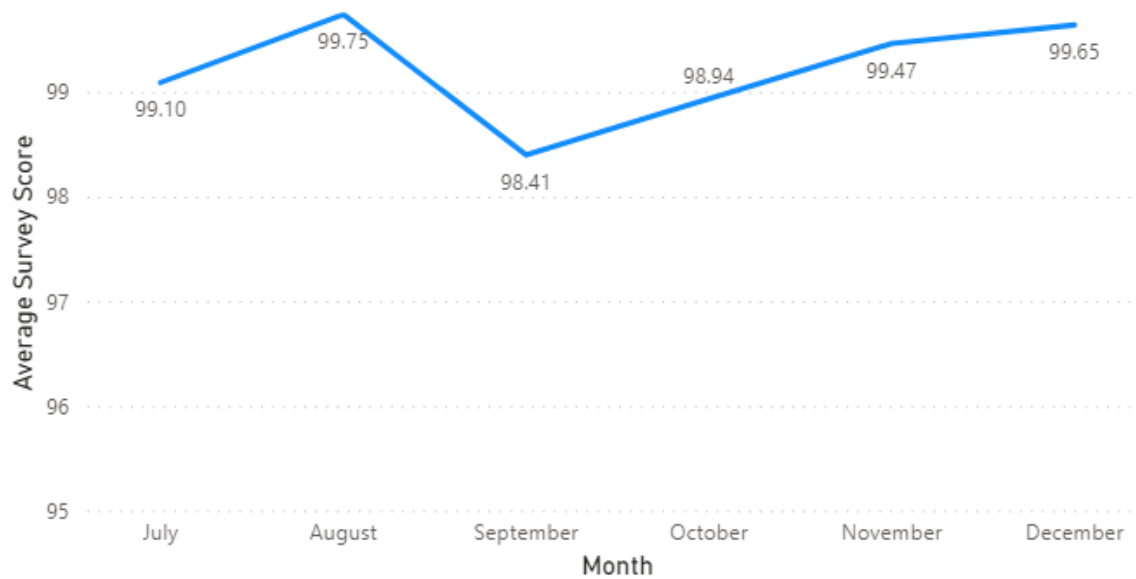
Remote Support Metrics from July 2019 through December 2019

- Remote Support fielded **20,443** requests for help via phone, emails, and online web submissions.

2019	Phone Requests	Online Requests	Email Requests	Totals
July	2161	92	963	3216
Aug	2695	167	1604	4466
Sept	2137	140	2348	4625
Oct	2333	120	1402	3855
Nov	1317	78	763	2158
Dec	1403	73	647	2123
Totals	12046	670	7727	20443

Remote Support Projects

In addition to providing remote support to Faculty, Staff, and Students this team provides significant work on accounts and other key systems. Below are a few of those key accomplishments.

Account Management

- Supported faculty and staff through the end of the migration of accounts from the UMKC domain to the new UMAD domain, which included reconfiguring mail applications and setting up MFA.
- Worked with Admissions, Registration and Records and various UM IT groups to address SSO account creation and maintenance issues.
- Created guest and resource accounts as requested.

AIMS – Account Management tool, which is used by UMKC, MST, MU, and UMSL

- AIMS updates that enhanced performance and efficiency were tested and approved for production in August, September, October, and December.
- Collaborated with UM-System IDM and UMKC IS AD Consolidation committees to revise account management policy and procedures for the AIMS system.
- The TSC tested and offered suggestions to help refine the new tool throughout the second half of the year.

Box – Cloud storage option for faculty and staff

- Helped manage the provisioning and de-provisioning of accounts in conjunction with Foundation Services and Internal Applications.
- The Tech Support Center runs a provisioning process once every day to ensure timely access to Box for new Faculty and Staff.

Bomgar – UMKC-hosted remote support solution used by UMKC, MST, MU, and UMSL

- Performed appliance and instance upgrades as necessary to ensure a secure remote support environment.

Academic Support

School of Computing and Engineering (SCE)

Information Services worked with the School of Computing and Engineering's IT Ops Committee Chair throughout the semseter to ensure we were effectively communicating IT changes and address the needs of faculty, staff and students. These meetings also give us an opportunity to discuss new projects and IT changes. These committee meetings are vital, particularly with SCE's continually changing lab environments and their expanding curriculum. Some of the recent projects we've worked on include.

- Interview with the ABET review committee to discuss IS role with providing technology support supporting educational mission of the school.

- Write detailed description of the technology IS provides as it applies to SCE for inclusion in the ABET certification report.
- Promote use of Box for cloud storage/collaboration and migrate users from Box Sync to Box drive, adoption is increasing rapidly.
- Migrate approximately 25 research lab users from FileZilla/Cygwin solution for connections to research cluster computers to MobaXTerm.
- Set up and deliver multiple high-performance Alienware PC's for GPU computing purposes in multiple departmental research labs, some with Windows and some with Linux. (Approximately 10 systems).
- Continuous testing and deployment of UMKC developed Linux system images department wide. We are now up to over 50 deployed Linux systems in the department and growing
- Staffed School of Computing and Engineering labs for extended hours during Fall semester midterms and finals.
- Assisted with special events as needed, including facilitating communications about guest accounts, software requirements, and access.
- Supported SCE with closing multiple labs during Spring Break by providing usage data, communicating the hour change to students, maintaining the 24x7 site, and being available to coordinate color printing needs.
- Worked with personnel assigned to schedule labs to assist with tracking ad hoc and recurring classes held in the SCE labs.
- Supported student printing needs by keeping supplies on hand and printers ready for use. Over 36,000 print jobs were printed in the SCE computer labs located in rooms 364, 457, 458, 460, 462, 464, and 527, totaling almost 254,000 pages.

College of Arts and Sciences (CAS)

Over the last 6-month period Information Services worked with the College of Arts and Sciences to support their technology needs and assist with many projects. A couple of these projects include:

- Communication Studies iPad refresh/reconfiguration to ensure devices met the needs of students.
- Art and Art History project to evaluate iPads for future use in classroom spaces.
- Worked with Geosciences to get many new software packages installed, including ArcGIS Desktop Pro and ESRY on 30 computers in Flarsheim Hall.
- Supported Center for Economic Information (CEI) request for Remote Access for students to their Research Desktops to access highly specialized software.

University Libraries (UL)

Information services worked with the Library IT Ops Committee throughout the semester to discuss ongoing and new projects.   Over the last 6 months a couple of the larger projects that were completed included:

- Deployed recovered computers from public spaces, replacing older lab computers and providing a better computing experience in these spaces.
- Configure and deploy Presentation TV in MML.
- Assist with Robot tours and make adjustments to Robot locations.
- Upgrade Iliad software used in inter-library loans.

School of Education (SoE)

- Provided additional training to SOE faculty and staff on how to use WebEx and Zoom video conferencing software.
- Collaborated with SOE Faculty to create and maintain 38 user accounts for their Community Counseling and Assessment Services (CCAS) program.
- Worked with SOE Faculty and Staff to identify, procure, and configure many software applications.
- Supported the SOE loaner laptop program in conjunction with their IT Ops Chair and leadership needs.

School of Biological and Chemical Sciences (SBC)

Over the last 6 months IS worked with the School of Biological Sciences and Chemistry to support their merger. As part of this change IS started providing first and second tier technical support for Chemistry. IS absorbed this additional support without any additional staff.

- Completed ongoing project to decommission and securely dispose of old computers, hard drives, and peripherals that were no longer serviceable
- Created PowerPoint presentation as part of SBC's annual Bio Boot Camp for faculty
- Completed project for Linux video capture computer to record and monitor research materials
- Secure research computers that are locked to legacy operating systems due to the research equipment connected to them by removing from network.

Bloch School of Management

While our partnership with the School of Management has been in place for a couple years, we still meet with their IT Ops Committee on monthly basis. This allows IS to stay updated on the IT needs for Bloch and assist on new projects. Below are a couple of the projects IS has successfully completed over the last 6 months.

- Worked with Bloch Faculty and Staff to identify, procure, and configure many software applications.
- Assisted with the technology requirements to support Bloch's Professional MBA program, which consists of multiple methods of teaching, both in person and online.
- Provided technical support for 100 events over the second half of the year, including the Entrepreneur of the Year conference. This is a very large event, hosted at Bloch Executive Hall, with over 250 participants.
- Updated Digital Signage throughout the Summer and Fall.
- Supported Zoom interviews for faculty and staff.

The School of Law

Support Services regularly meets with the Law School to ensure service needs are being met and to stay updated on current technology needs within the Law School. There were several key projects that IS and Law collaborated on, including:

- The Arthur H. Stoup Courtroom has been upgraded from outdated analog technology to a state-of-the-art digital classroom. This upgrade gives the School of Law an extraordinary space for learning and community engagement. New camera systems will permit recording of student trials, arguments, and other simulated lawyering skills. The system also supports sophisticated distance learning – whether webcasts of CLE programs or lectures by visiting scholars from around the globe. 8/14/19 was the training opportunity.
- Migrated JotForm Subscription to HIPPA subscription to ensure security needs are met.

School of Nursing and Health Sciences and School of Pharmacy

IS continues to work with both Nursing and Pharmacy to support their IT needs, including regular meetings with the IT Ops Committees at each school. 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.

- Health Sciences hosted the 2019 Virtual National Reproductive Health Conference at the UMKC School of Nursing. This year's event served 1,160 participants and was run on a virtual platform. IS supported this on campus and provided remote support.
- Nursing and Pharmacy started looking at what they needed to replace the Laerdal software for videotaping Health Exams for grades.

Conservatory

- Configured new specialized workstation, 4K monitors, Glowforge Laser Printer, and a 3D printer for the new Chair of the Theater division.
- Worked with the Conservatory to attain new hardware and software to refresh the iMpact Center lab.
- Assisted with office and computer moves in July and again in December.

Toy and Miniature Museum

- Worked with Executives and Staff to identify, procure, and configure many software applications.
- Updated the TMM server which houses Point of Sale software, such as QuickBooks and Past Perfect.
- Provided additional training to TMM faculty and staff on how to use Box, cloud storage, and remote connection applications.
- Worked with Executives and Staff to identify, procure, and configure hardware and software applications to increase Wi-Fi access in the TMM basement.

KCUR

IS continues to support KCUR and their growing staff. Over the last 6 months we have supported multiple membership drives ensuring these critical events are running smoothly.

- Revamped the supporting technology required to ensure the membership drives are a success and secure. This included using new encrypted card readers to reduce PCI compliance issues.
- Setup and configured redundant Icecast servers to ensure maximum uptime for the online KCUR stream.
- KWJC is has been announced to the public and licensed with the FCC.
- Election2020
    - The project manager has been hired and most of the new office is in place, 2 other staff have accepted positions and start soon.

Administrative Affairs & Student Affairs

- Supported multiple departments during a major broken pipe that flooded an entire floor.
    - Required on-site dedicated support for multiple days to assist staff with their technology needs.

- ○ Move computers from various departments to upper floors and various other buildings. We used Cherry Hall, Cockefair, Miller Nichols Library for temporary office space.
- ISAO/IS Collaborative Safety Presentation to help students stay safe online and recognize email and phone scams.
- CFM Phoenix Control Computer Upgrade Project, which included replacing 3 computers and migrating from Windows 7 to Windows 10.
- Deployed Rave Guardian App to CFM cellphones to ensure timely response to any emergencies.
- Supported the migration to Paciolan for Athletics. This is used for video/web hosting and provides the backend for many of the ticketing services.
- Installed and supported the software and computing requirements for new scoreboards in Athletics.
- Supported multiple personnel moves for Enrollment Management, Admissions, Human Resources, and the Chancellor's office by moving technology to new locales within the Admin Center.
- Worked with Mailroom and Pitney Bowes to get the Business Manager Program installed and configured. This is a highly specialized piece of software required for this group.
- Moved Residential Life from the Oak Hall to the Oak Place Apartments temporarily during renovations.
- Install software and hardware for MULES, which allows UMKC Police to retrieve information from the Missouri State Highway Patrol.
- Install Brainware Verifier for the Registrar's computers. Worked with Columbia campus to get this accomplished in a very short timeframe.

Campus Wide - Enterprise Support

AirWatch

Leveraged our Mobile Device Management solution, AirWatch to manage numerous mobile devices across the campus. This tool is valuable for increasing efficiencies when managing mobile devices as well as protecting University data. As part of these efforts we upgraded AirWatch to version 19.x to take advantage of the new version of iOS and expanded functionality.

IS completed a mobile device project for Parking Services, which included replacing all of the devices used in the field for their work.

IS deployed Rave Guardian App to nearly 100 CFM cellphones to ensure timely response to any emergencies.

SCCM

Continue to use Microsoft's SCCM as our primary asset management tool and our preferred method of software installation. Work was started to replace an aging distribution point, which is on target for purchase next period.

Universal Image

Updated Windows 10 Universal Image to support current desktop and laptop standards. This also included updated software and security patches.

License Servers

Updated many individual license servers with updated daemons and/or license files. This is required to keep software, both for computer labs and researchers able to run the latest version of their software. Some of the servers updated include MatchCad, Ansys, FME, Comsol, and Oxygen.

Website/Reports

Performed regular website updates and maintenance, including the creation of Adobe FAQ.

Many reports were updated and created during this period, including software licensing, RemoteLabs, and Budget/lifecycle planning.

Lab Packaging

Over the last 6 months considerable time was spent updating all the software applications used in the computer labs. Over 125 applications were updated, packaged with SCCM, and tested to ensure compatibility. This ensures that Faculty and Students have the latest versions of software, both in classrooms and in computer labs. While this is a significant amount of work to complete it greatly reduces the amount of time to update such a large number of computers.

Software

Adobe Creative Cloud

Support Services worked with UM System and Adobe to renew our Adobe ELTA license agreement. This was a long and complicated process that directly impacts a large portion of Faculty and Staff that utilize this software. As part of the new agreement there were many changes put in place by Adobe that we had to account for, the most noticeable being the shift from computer-based licensing to named user licensing. Some of the technical changes required to support this new process include:

- Creation of AD groups and the synchronization to Adobe's Sync Server
- Creation of new SCCM and JAMF packages to deploy this software over the network
- Revamped renewal process to account for changes in Adobe products

Over the last 6 months we have completed the annual renewals for over 1,000 Adobe installations across campus. Included in this project was upgrading the Adobe CC software across campus to ensure students, faculty, and staff had the latest version.

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 as older software is often less secure.

Software Renewals

Expanded the use of our software renewal portal based on feedback from fiscal officers across campus. These improvements will lead to greater efficiency, not only for IS but for fiscal officers.

IS processed annual renewals for Adobe CC, ArcGIS, and other software during this timeframe.

Zoom Migration

IS continued to shift to Zoom as our preferred and standard video conferencing tool. This included the creation and updating of websites and training internal staff to ensure we can provide service to campus.

Student Computing Facilities

We had **11,481** distinct individuals use computing sites between 7/1/2019 and 12/31/2019. This represents a very large percentage of our student base and exemplifies the usefulness and importance of these student computing facilities.

In addition to the physical computer sites, we had **1,137** distinct individuals who logged into RemoteLabs **8,986** times.

One of the larger accomplishments during this time was the creation of a new student print station in the ASSC. This allows students to print from their personal laptops in a much-needed location on campus.

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

- Expanded select lab hours during peak usage periods, including over midterms and finals, to give students greater access to computing resources when they needed them.
- Worked with CFM and multiple other Departments and Schools to ensure lab environments were maintained at an optimal level, including deep-cleaning carpets and floors in several facilities over Winter Break:
- Worked with CFM and other groups to ensure lab security and make sure that labs were accessible during regular hours and secured when not in use.
- Upgraded the cameras and software used to monitor labs. Decommissioned previous model.
- Continued work on budget projections for staffing costs over the next five years to plan for the increase in Missouri's minimum wage. Dealt with increase in cost at onset of fiscal year.
- Updated information on Universal Access resources on the public labs web site.
- Assisted with communication of change from Adobe Creative Suite to Adobe Creative Cloud.
- Assisted campus with communicating information about Accreditation survey.
- Assisted with RoosForMentalHealth initiative by updating background image on lab machines.
- Began work moving internal training materials to Canvas.
- Provided multiple detailed reports on equipment and operation costs for general use labs.
- Conducted 3 new hire orientations to train new staff.
- Ensured that all Student Assistants completed Title IX and other required training.
- Processed over 3,720 shifts and supervised over 9820 Student Assistant man-hours.
- Maintained sufficient student employees to staff labs by processing over 70 applications for Student Assistant positions, conducting over 70 computer skills tests, interviewing over 40 prospective new hires, and hiring 11 new Student Assistants for IS-managed labs.
- Completed reviews for 40 Student Assistants to keep employee performance at optimal levels.
- Staffed registration sessions during five new student orientations, including providing printing and guest account resources.
- Provided support for an event involving prospective students in the HSB 3304 computer lab.
- Assisted with Unionfest activities.
- Worked with Miller Nichols Library staff on procedures, budget, and staffing necessary to match operations in the second floor computer lab to the library's new hours. The MNL Extended Hours had 382 shifts and over 653 Student Assistant man-hours.
- Worked with Miller Nichols Library staff on scheduling procedures for Student Assistant staff and options for scheduling software.
- Provided shift data for SCE fiscal officer's budget planning.
- Assisted with addressing infrastructure issues in SCE labs.
- Staffed School of Computing and Engineering labs for extended hours during Fall semester midterms and finals.

- Assisted with special events in the SCE labs as needed, including facilitating communications about guest accounts, software requirements, and access.
- Assisted with preparations for SCE's ABET site visit and follow-up activities.
- Assisted with renovation of computer room in Johnson Residence Hall

Lab Printing

Performed application upgrades on PaperCut across the student computer labs. This adds additional functionality to students and ensures we are up-to-date from a security perspective.

Supported student printing needs in computer labs with network printers and keeping supplies on hand and printers ready for use. Over 290,000 print jobs were printed in these sites, totaling over 2,141,000 pages.

Totals and Trends in IT Procurement

- Purchased roughly $3,545,000 worth of IT hardware and software, including computers, tablets, printers, peripherals, specialty systems, software, web services, subscriptions, service warranties, and maintenance agreements
  - This represents a 61% increase in total spend over the same period one year ago when $2,205,000 worth of products and services were purchased
    - Software purchases increased by 45% as measured by spend, totaling a little of more than $2,484,000
    - Hardware purchases of roughly $1,060,000 reflect a substantial increase of 75% over the previous period
  - This may be largely attributed to two factors
    - Continued improvement in consolidation and tracking software expenses
    - Increased adoption of the revamped Workstation Replacement Program, including a large uptick in Out-of-Cycle orders

IT Procurement: Distribution by Vendor

- The distribution of IT Hardware spending over primary vendors continues to demonstrate support for standards at UMKC
  - Dell and Apple computers are the preferred standard for use at UMKC.
    - The total spend for these too computer brands accounts for 81% of the total IT hardware spend
      - This represents a 14% increase from the previous year and the highest percentage since records have been kept

- This is partially due to the increased participation in the Workstation Replacement Program and commitment to lifecycle computer replacement on campus
- While Apple systems remain popular, Apple (as a vendor) is at its smallest level in both total and as a percentage
  - This is due to a change in the acquisition process for Apple products
  - IT Procurement has formed a partnership with the MU Bookstore to develop a more efficient process resulting in both cost savings and reduced accounting and reconciliation time
- The following table lists the Top 10 IT Hardware Vendors by total spend for the period and demonstrates the current mix of standard versus specialty vendors

IT Hardware Vendor	Spend
Dell	$686,834.40
MU Bookstore	$176,142.32
Anatomage	$78,990.00
Connection	$38,532.45
Amazon	$33,904.19
SumnerOne	$12,283.79
Apple	$8,060.55
Rave Mobile	$6,000.00
Glowforge	$5,066.00
B&H Photo	$3,046.09

- The distribution of IT Software spending over primary vendors continues to demonstrate the diversity of the market reveals many more different types of manufacturers and re-sellers with significant expenditures
  - This six-month period introduced total of 55 new product titles to our software environment
  - The following table lists the Top 10 IT Software Vendors by total spend

IT Software Vendor	Spend
Microsoft	$197,546.14
Civitas Learning	$185,049.00
Internet2	$172,178.78
CBORD	$105,966.33
Adobe	$98,680.00
ZAP Solutions	$80,000.00
eLearning Innovation	$75,500.00
ATI Nursing Education	$66,240.00
Examsoft	$65,850.00
Corporate Web Services	$55,000.00

- To manage the diversity and ever-increasing number of product and services acquired, IT Procurement continues to manage, update, and improve the Software Database to include the following records
  - Vendors – 771, an increase of 5.8%
  - Product Titles – 1471, an increase of 4.9%
  - Licenses – 13.079, an increase of 9.1%

IT Procurement: Distribution by Unit

- IT spending by division and academic unit provides a glimpse into the scope of the value IT equipment offers these units and the investment committed to lifecycle replacement and sustainability
- These totals represent unit spending on Workstation Replacement 2020 as well as *ad hoc* hardware and software acquisition throughout the period, including UMKC's contribution toward campus and multi-campus agreements for hardware infrastructure and software site licenses

IT Spend by Unit (July - December, 2019)

Unit	Amount
Administrative & Financial Services	$225,021.82
Athletics	$108,371.66
Bloch School of Management	$236,027.99
Chancellor's Office	$4,275.76
College of Arts & Sciences	$72,753.63
Conservatory of Music & Dance	$35,132.55
Diversity & Inclusion	$2,672.39
Information Services	$549,427.43
Marketing & Communications	$29,484.10
Provost's Office	$523,917.67
Research & Economic Development	$216,189.76
School of Biological & Chemical Sciences	$37,008.42
School of Computing & Engineering	$106,859.33
School of Dentistry	$121,420.84
School of Education	$119,071.05
School of Graduate Studies	$1,664.67
School of Law	$84,340.60
School of Medicine	$308,742.23
School of Nursing & Health Studies	$194,085.37
School of Pharmacy	$80,929.11
Student Affairs	$281,076.93
University Advancement	$11,441.90
University College	$4,162.31
University Libraries	$164,778.51

Workstation Replacement 2020

- The first half of each fiscal year culminates with the Workstation Replacement Program
- Its primary goal is to replace faculty/staff workstations on a four- or five-year lifecycle to benefit productivity and mitigate the security concerns endemic to older operating systems

- Adherence to a small number of standard systems and ordering in large quantities allows IT Procurement to negotiate favorable pricing
- The funding model for Workstation Replacement changed dramatically in FY2019
  - The Provost's Office no longer offers a $1000 subsidy to incentivize replacement; instead, Information Services is funding the subsidy, but only to the total of $250
  - This had a staggering effect on the total number of systems replaced in FY2019
    - The FY2019 WRP resulted in the replacement of 181 systems at a total spend of about $190,000.
    - The FY2020 totals rebounded as units had time to acclimate to the fiscal changes and chose to pursue a much higher level of Out-of-Cycle WRP buying throughout the year
      - There were 408 systems purchased at a cost of nearly $400,000
      - This represents an increase of 125% from the record low adoption of the previous year
- Below is a summary of WRP spend patterns over recent years

Fiscal Year	Subsidy Spend	Unit Spend	Systems	Total Spend
FY2011	$285,058.00	$252,418.00	634	$537,476.00
FY2012	$329,064.00	$260,289.00	676	$589,353.00
FY2013	$339,673.45	$240,580.00	666	$580,253.45
FY2014	$306,443.40	$218,663.07	561	$525,106.47
FY2015	$256,837.10	$238,721.40	571	$495,558.50
FY2016	$320,519.57	$319,601.59	659	$640,121.16
FY2017	$295,884.13	$395,453.20	664	$691,337.33
FY2018	$316,950.06	$239,224.59	530	$556,174.65
FY2019	$26,500.00	$163,928.00	181	$190,428.00
FY2020	$65,678.88	$333,560.74	408	$399,239.62

Other Notable Activities

- Provided IT hardware and software product selection and configuration consultation in response to a myriad of different request scenarios in accordance with UMKC and UM standards, contracts, and approved processes
- Worked with vendors to create customized price quotes for multiple products and configurations
- Reviewed and provided IT approval for eProcurement orders input by other departments
- Worked with UM Supply Chain and fiscal officers to ensure IT and Procurement approval policies are followed, resolve budget errors and direct expense transfers as necessary
- Reconciled OneCard orders providing written IT and fiscal approval statements from authorized personnel, invoice/receipt documentation, MOCode and PeopleSoft account code assignments for all transactions
- Served as primary point of contact for cellular service and mobile device consultation and acquisition for all UMKC corporate accounts and lines of service

- Communicated with IT and client constituents to provide information on software product updates, license expirations, device models, configurations, and pricing for a range of UMKC standards on numerous site-licensed pieces of software, computers, tablets, printers and other IT-related items

Technology Management Services

As a division, we have worked with several academic and business units to renovate, design, install, and provide ongoing support for multi-faceted information technology (IT) and audiovisual (AV) systems. The following sections discuss the key IT/AV projects, by phase, that consumed a significant amount of IS resources' time during this last review period (July - December 2019).

Completed Projects

IS completed (23) IT/AV projects. The following projects were the most significant and time-consuming. *See Appendix "A" for individual project detail*.

- **P220 – Data Center Switch Refresh (DSR)**
  This project upgraded the existing Administrative Center and Newcomb Hall data center networks. The new networks utilize a "spine and leaf" design allowing us to purchase the needed number of interfaces while allowing for easy expansion for the future. The new network equipment greatly increased the number of available 10 GB copper and fiber interfaces and also supports 40 GB & 100 GB interfaces where needed. The new "spine" switches are geographically separated across the two data centers. This equipment also allows us to implement a software-defined network (SDN) features as needed in the future. The switches were installed and configured during this review period and the project was completed.

- **P293 – ILE Classroom Upgrades FY19 IS Funded**
  As part of our continual process in keeping the highest quality student experience in our student classrooms and learning spaces, IS upgraded 6 ILE rooms in FY19 to HD widescreen digital video systems with enhanced audio processing, web conferencing, and wireless collaboration features. During this review period, we partnered with Campus Facilities Management to install infrastructure for the systems and installed the new equipment in various spaces in Haag Hall, Royall Hall, Grant Hall and Cockefair Hall.

- **P342 – CBORD Upgrade to Gold**
  This is a project upgraded the existing CBORD ID Works card production system, which was 12 years old, with Datacard TruCredential and Datacard SD460 card printers. New features and enhancements include TruCredential, which provides flexibility to capture student images and date anywhere on campus using remote stations, tablets, or smartphones. This software also enables us to issue ID cards with smart chips, magnetic stripe, radio frequency, or other machine-readable technologies. During this review period, we converted the card system to CS Gold, coordinating the training of staff, and decommissioned the old CS Odyssey servers.

- **P344 – WebEx to Zoom**
  This project transitioned our primary supported web conferencing tool from Cisco WebEx to Zoom. UM System purchased Zoom for all four campuses, and as a result, UMKC expects cost savings associated with decommissioning WebEx on our campus. During this review period, we

communicated with existing WebEx users and helped to transition those users to Zoom. We also developed campus-wide communication and support documentation for use of Zoom as a web conferencing tool and the project was completed.

Current Projects – Implementation Phase

IS progressed in implementing (16) IT/AV projects during this review period. The following projects were the most significant and time-consuming. *See Appendix "A" for individual project detail*.

- **P174 – SCE Educational and Research Center**
  This is a project to build a new multi-story building in addition to our existing Computer Science & Engineering building, Flarsheim Hall. The IT/AV scope includes building-wide network infrastructure, IT closets, a VR showroom and computer lab, a high-performance computing teaching data center and computer lab, a motion capture lab, and unmanned systems lab, and renewable energy lab, and several smart classrooms and collaboration spaces, and building-wide digital signage, and a new CBORD access and surveillance system along with the conversion of existing Lenel systems to CBORD in Flarsheim Hall before construction. During this review period, IS completed several design/estimate meetings with various clients and vendors, finalized the estimate, and sent it to CFM for approval.

- **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.   During this review period, we scheduled and completed all conversions for those departments that opted in. We also began decommissioning and powering down servers.

- **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. During this review period, planning for MFA implementation began, and employee accounts were synced with O365. UMKC project team members coordinated campus communication, including emails, web page creation and edits, and developed support processes and documentation related to new services and changes.

- **P305 – AD Consolidation**

System-wide IT is currently engaged in a project to consolidate each of the University campuses' user accounts into a single, shared domain. This is an effort that will reduce costs, strengthen support infrastructure, increase security, and result in a more efficient IT environment. This consolidation will ease the adoption of cloud services, off-the-shelf software, and promote the sharing of common resources system-wide. As part of this initiative, Information Services played a key role in ensuring success at UMKC. A few of these activities include:

- Migrated 100% of Faculty, Staff, and Students to UM-AD Domain
- Updated multiple online resources and FAQ to support the migration process
- Expanded remote staffing levels by cross-training existing staff during the user migrations to assist Faculty, Staff, and Students.
- Participating in weekly System-wide calls

- **P346 – AC Data Center Cooling System**
This project is to alleviate temperature control issues in the Administrative Center data center on the UMKC campus. During this review period, we completed Phase 1 of this project – purchase and installation of a Spot Cooler temporary cooling unit. We also began Phase 2 of the project to design and implement a permanent cooling solution and worked extensively with UMKC's Campus Facilities Management team and outside engineers to design a long-term, cost-effective cooling solution.

- **P362 – IS Work Order Form**
This project was to create a service request tool for Networking and Telecom in Cherwell to replace the previous MACS tool which was running on unsupported code. During this review period, we redesigned the service catalog and began the process of developing and creating the specifics in Cherwell with the CTS/AV, Networking, Support Services, and leadership teams.

Current Projects – Development Phase

IS has made good progress working with units to plan (7) IT/AV projects during this review period. The following projects were the most significate and time-consuming. *See Appendix "A" for individual project detail*.

- **P300 – Oak Place Water Damage**
This is a project to remove and replace IT Networking & Telecommunications equipment so renovations/repairs can be made to the water damaged Oak Place apartments. Scope included removing all in-room access points from students' rooms, demoing and removing all equipment in IT closets, then reinstalling all the same after renovations are finalized.   During this review period, we began meeting with CFM and the hired contractors and designed and finalized the IS estimate for IFS and Networking.

- **P371 – Qognify Camera Conversions**

This project is to determine the cost for Qognify to move UMKC's cameras (422 as of 11/14/19), including a phased-approach recommendation, migration, and training to migrate to the latest version (from Qognify to VisionHub). Additionally, converting all remaining cameras to this system, including the dorms, Animal Labs, and Bookstore. During this review period, IS began quoting the systems for the dorms, Animal Labs, and Bookstore and compiling the cost to upgrade the UMKC campus to Qognify/Vision Hub to meet the storage needs of our campus.

- **P373 – CBORD/Mobile Pay Upgrades**
  This project is to work with various UMKC units to determine card reader inventory, work with the vendor to determine the cost to replace all mag stripe card readers across campus with proximity cards/Mobile ID, and plan/coordinate a phased migration. During this review period, IS and the UMKC Building Security Committee worked with the OneCard Office to complete and inventory/use cases spreadsheet for the vendor for quoting costs for conversion.

UMKC Building Security Committee

The UMKC Building Security Committee is comprised of representatives from IT, Student Affairs, Police and CFM focused on developing campus security standards, ensuring campus-wide involvement on security issues/requests, and developing recommendations to UMKC senior leadership on the same. See the following projects/initiatives for this period.

4747 Troost Enhancements
- Scope: Tracking of IS-related work for procurement and installation of video doorbell systems at 4747 Troost.
- Summary of Accomplishments: Compiled estimate, ordered, received, and installed equipment and added to the CBORD Security system.
- Completed: November 2019

4825 Security Enhancements
- Scope: Tracking of IS-related work for procurement and installation of video doorbell systems at 4825 Troost.
- Summary of Accomplishments: IS developed equipment options, received vendor pricing, and prepared costs estimates that were sent to CFM to secure funding.
- Completion: Unknown – project is waiting on funding.

CBORD Upgrade from Odyssey to Gold
- Scope: Investigate the advantages of upgrading from our current system, CBORD Odyssey, to CBORD Gold.
- Summary of Accomplishments: Coordinated the exporting of photos, bookstore interface, Papercut interface and GET funds, firewall setup, and decommission of Odyssey server
- Completed: September 2019

Lenel to CBORD Transition

- Scope: Replace existing Lenel Card Access, Alarms, and Surveillance Systems with CBORD System and decommission Lenel System. Lenel systems are end of life and run on outdated software which has to be upgraded by Jan 2020. Most new buildings have been brought online with the new CBORD security system and it doesn't make sense to invest in Lenel going forward. The goal is to migrate the 10+ existing Lenel buildings over to CBORD and decommission the Lenel system.
- Summary of Accomplishments: All buildings converted from Lenel to CBORD. A vendor-related issue affecting audio/visual export is outstanding. Decommission of all servers will be complete once this issue is resolved
- Completion: In Progress (March 2020)

IS Lab Camera Upgrades

- Scope: Develop design and install cameras in IS Labs to replace the end of life for Netbotz and decommission the Netbotz server.
- Summary of Accomplishments: Installed cabling, activated and programmed cameras, installed cameras, configured in the Nice/Qognify system, installed NiceVision control application where needed, completed field verification, secured licensing, and decommissioned Lenel/Netbotz.
- Completed: November 2019

Oak Hall Renovation

- Scope: Remove IT Closet Equipment for GC to renovate space
- Summary of Accomplishments: Removed all IS equipment according to the construction timeline.
- Completed: September 2019

ILE Classrooms, Conferencing, Distance Ed, and On-Demand Video

Information Services continued to support the hardware and software necessary to facilitate classes onsite as well as online (synchronously and asynchronously) while maintaining efficient issue resolution times, minimizing downtime, and the subsequent impact on students, faculty, and staff. Highlights are outlined below.

- TMS successfully supported and maintained well over 350 ILE/AV systems. These systems include classrooms, conference rooms, performance spaces, collaboration spaces, teaching labs, and signage systems.
- 1946 new streaming media entries (videos, images, and audio clips), were added to Kaltura by faculty and/or students.
- 777 hours of ITV distance learning was supported during this review period. The chart below tracks support over the last two years.
- During this review period, TMS provided support for 8.5 hours of recorded HSB Simulation

Hours of ITV Distance Education Supported
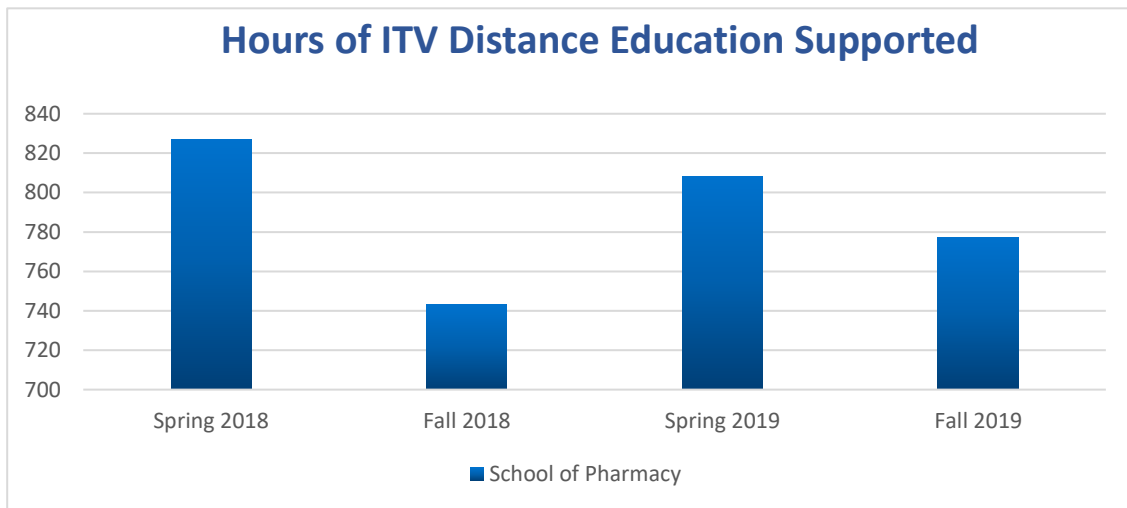
Center events. The chart below tracks support since the Assessment Lab over the past two years.

Hours of HSB Simulation Center Events Supported
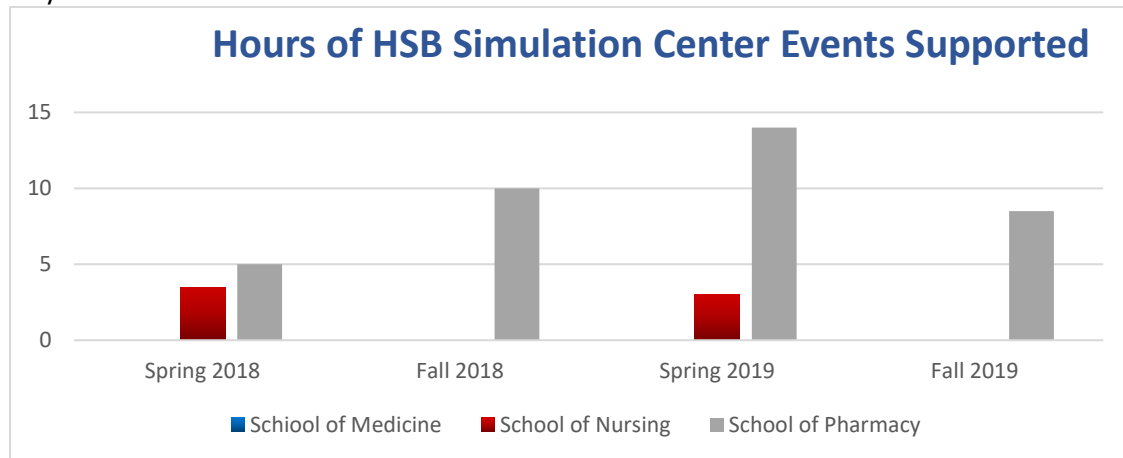
Building Network Infrastructure

IS supported phone and data related to add, move and change requests, a large number of buried cable marking requests, and support tickets. The highlights are summarized below. *See Appendix "B" for a 10-year snapshot of building wiring progress.*

- Completed 227 adds, moves, and changes in voice jacks, data jacks, and phones.
- Marked University buried cable plant locations as required by Missouri Law for One Call services 326 times.

UMKC Operators

The UMKC Operator number (ext. 1000) handled 31,599 phone calls during this review period. Of those ~31.6K calls, users were able to self-route approximately 67% of the calls using our automated call routing tree. 33% of the calls required human interaction from campus operators

Calls Routed/Processed

Legend: ■ Self Routed Calls ■ Calls Answered by Operators
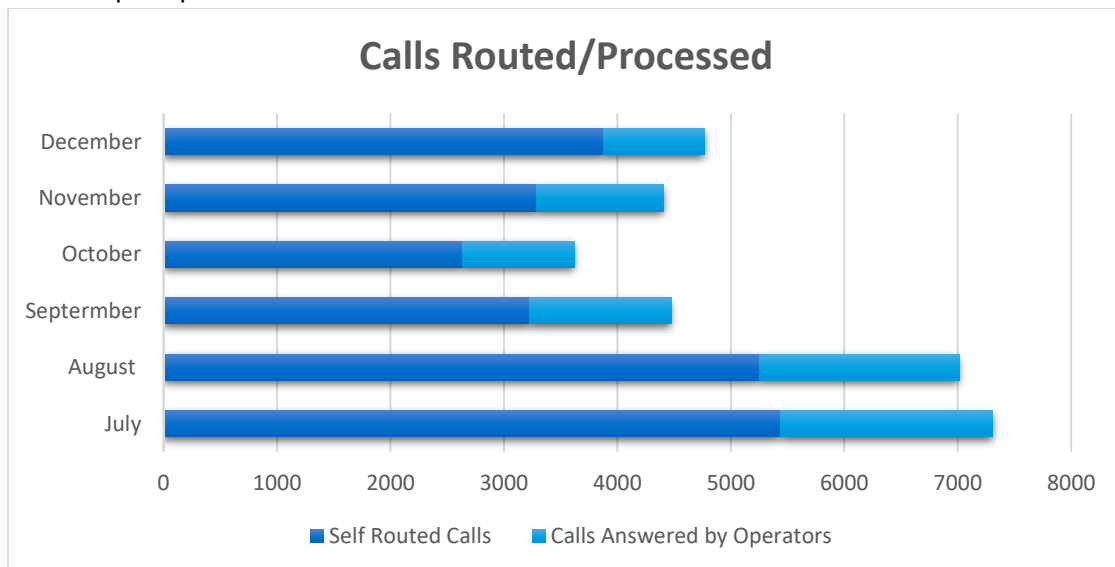
Academic Enhancement

The UMKC Academic Enhancement Department provided video production and streaming services for (29) different academic and administrative projects during this reporting period ranging from individual course materials to producing Convocation, Commencement, and many other UMKC promotional pieces.

Below is a comprehensive list of projects completed during this period:

PROFESSIONAL DEVELOPMENT
- Attended Siggraph 2019

CONSERVATORY
- Fall Opera

SCHOOL OF MEDICINE
- White Coat Ceremony

SCHOOL OF NURSING
- OSCE Online course

SCHOOL OF EDUCATION
- Dean Introduction Video
- Instructor Interviews

FaCET
- Kaufmann Lecture Recording

PROVOST'S OFFICE
- Convocation
- Commencement
- "Week of Welcome" live streams
- Faculty recognition dinner video
- Focus group video
- Research Summit
- Chairs and Directors meeting live streams

SCHOOL OF COMPUTING AND ENGINEERING
- Blockchain 101

DIVERSITY AND INCLUSION
- Antisemitism: Here and Now
- Dr. DiAngelo keynote

ATHLETICS
- Basketball hype video

BLOCH SCHOOL
- EMBA Speaker Series
- KC Scholars Interviews
- First Wednesdays
- EOY Footage

CHANCELLOR'S OFFICE
- UMKC Engagement Showcase

MCOMM
- Move in day footage
- Academic spotlight videos
- Admissions counselor videos

LINDA HALL/CONTINUING EDUCATION
- Dr. Bill Ashworth Cockefair course

UMKC ONLINE
- Orientation Video

SCHOOL OF DENTISTRY
- Dental Procedures Videos
- Bio materials.

Academic Support

Bloch School of Management

Information Services provides IT support and specialized services for the Bloch School of Management. Below is an overview of the services provided to Bloch over the last 6 months.

- IS began working with Bloch, UMKC Online and the Registrar's office to create a "RooFlex" certification process.
- Information Services worked closely with Bloch and UMKC Online on the PMBA program's "RooFlex" component.
- IS designed a custom classroom technology solution for mixed-modality delivery.
  - IS continued to provide on premise support for Bloch instructors facilitating synchronous online sessions, both in dedicated classroom spaces and in Faculty offices.
  - IS provided training sessions for faculty and staff to ensure comfort with the tools associated with synchronous and asynchronous online education.
  - IS continued to maintain two "ZOOM" rooms with equipment and software to facilitate synchronous online sessions and asynchronous recordings.
- Providing technical support for special events, conferences, career fairs, etc. continued to be a primary function of dedicated Bloch IS staff.
  - Bloch Executive Hall hosted >70 events requiring technical assistance from July to January.
    - These events ranged in size from 10-200 attendees.
- Information Services continued to facilitate a projector lamp cost reduction plan on behalf of Bloch.
  - 100% of lamp assemblies in Executive Hall classrooms are replaced with rebuilt assemblies upon failure.
    - OEM raw lamps are ordered and failed lamp assemblies are rebuilt.
      - Rebuilt assemblies are currently yielding longer lamp lives than OEM assemblies.
  - Lamp cost has been reduced by $700 per replaced pair, per projector.
- Information Services worked closely with Bloch and marketing for all of Bloch's Four Winds Interactive (FWI) displays.
  - IS handled content editing and deployment to Bloch's FWI players.
  - IS handled FWI hardware/software design, deployment, and maintenance.
- Information Services provided the following services related to coursework:
  - Completed daily preventive maintenance checks all Bloch classroom spaces before the start of morning classes (daily) to minimize disruptions.
  - Scheduled technicians in both buildings based on the class schedule.
    - This ensured we met Client support expectations.
  - Technicians were scheduled on weekends when classes/events dictated.

School of Nursing and Health Sciences (SoNHS)

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 identified an echo-cancelling portable dual speakerphone system to provide better audio during online collaborative meetings until system upgrades could be performed.
- IS liaised with manufacturer to resolve issues with the new Phoenix Audio Spider speakerphone system, and drew up an instructional reference sheet for its use.
- IS assisted the Collaborative to Advance Health Services to collaborate with INXPO Enterprise Streaming Solutions to conduct a National virtual conference on Reproductive Health.
- IS provided technical support to the Collaborative and SoNHS faculty in the Project Echo "hub" collaborative space, both in issue resolution and 1-on-1 coaching capacities
- IS has provided daily room checks and as-needed technical assistance via ITSM, phone and direct reports in ILE spaces.
- IS provided scheduled operational assistance for the 5th Floor "Assessment Lab" a non-ILE standard space, including the operation of AV system and Laerdal "SimView" software.
- IS provided provided on call technical support for the 4th Floor "Dispensing & Simulation Lab", a non-ILE standard space, including first-tier troubleshooting, network support and liaison with vendor support when required.
- IS assisted with the distribution of batteries for wireless microphones and input devices, as well as dry erase supplies.
- IS assisted with reporting facilities issues within the building.

School of Pharmacy

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 supported connections between Zoom and standards-based room video conferencing systems.
- IS liaised with UMKC Online to provide support to faculty on issues with online teaching tools.
- IS has provided daily room checks and as-needed technical assistance via ITSM, phone and direct reports in ILE spaces.
- IS assisted with the distribution of batteries for wireless microphones and input devices, as well as dry erase supplies.
- IS assisted with reporting facilities issues within the building.
- IS provided operational and immediate-response technical support for the School of Pharmacy's video distance learning program in HSB classrooms.
- IS coordinated technical support of the SoP's video distance learning program with teams at the MU and MSU locations.

Network Architecture

Security

Network Architecture is responsible for the installation and maintenance of departmental level firewalls. These firewalls protect specialized hardware or data (HIPPA, PCI, etc.) in specific locations across on the UMKC network. Activities include maintaining appliance firmware and security rules.

- Equipment managed
  - Cisco physical firewalls = 16
  - Cisco virtual firewalls = 16
  - Fortigate physical firewalls = 12

Wired Network

Network Architecture is responsible for installation and maintenance of UMKC's wired network switches & routers and their physical connections to our remote offices, Internet service providers, & research networks.

- Equipment managed
  - Routers
    - Internet Edge routers = 1
    - Core Network routers = 2
  - Switches
    - Building Network switches = 402
    - Data Center switches = 12

Highlights and key initiatives

- Migrated remote offices from Metro-E to SD-WAN connections to lower costs by 50%-80% and double bandwidth
  - Union Station
  - KC-Rep Copaken Stage
  - Institute for Human Development
- Reconfigured data center uplinks to improve performance and resiliency
- Completed migration of building networks to Cisco 6807 core routers to improve resiliency and increase uplink speeds to 20 Gigabit where possible

Wireless Network

Network Architecture is responsible for the installation and maintenance of UMKC's wireless networks. These networks include the UMKCWPA, EDUroam, UMKC Media in the residence halls and a few other specialized networks for Internet of Things (IOT) devices.

- Equipment managed
    - Wireless Controllers = 2
    - Access Points = 1316

Highlights and key initiatives

- Replaced the single Cisco Catalyst 6509 operating as the wireless core with a pair of Cisco Catalyst 6824 switches to provide much higher bandwidth to the wireless networks. The Cisco Catalyst 6824 switches are installed in both of the UMKC campus data centers for increased resiliency
- Upgraded the software on the wireless controllers and 1300+ access points to improve performance

Servers

Network Architecture operates physical and virtual servers to host the applications used to provide network, voice and monitoring services. These servers run both Linux and Windows operating systems and are hosted on equipment maintained by Network Architecture as well as equipment maintained by I :Foundation Services.

- Equipment managed
    - Cisco UCS blade servers = 4
    - Cisco UCS rack mount servers = 1
    - VMware ESXi Virtual Servers
        - Voice VMs = 15
        - Infrastructure VMs = 14

Highlights and key initiatives

- Replaced the existing blade servers with 4 x UCSB-B200-M5-U series blades
- Upgraded the firmware on the Cisco UCS chassis and blade servers

Voice

Network Architecture is responsible for installation and maintenance of UMKC's voice network. This includes the servers, routers, and gateways and their physical connections to the public telephone & long distance service providers.

- Equipment managed
  - o Voice routers = 2
  - o Analog voice gateways = 6
  - o Voice Applications
    - ▪ Cisco Unified Communications Manager = 2
      - • Physical phones = 2680
      - • Analog lines = 596
    - ▪ Cisco Unity Connection VoiceMail = 2
      - • Voicemail boxes = 2242
      - • Call handlers = 233
    - ▪ Cisco Unified Contact Center = 2
      - • Queues = 12
      - • Agents = 75
    - ▪ Cisco Unified IM & Presence = 2
      - • Jabber Softphones = 1702
    - ▪ Verba call recording = 1

Highlights and key initiatives
- Installed 2N video door phones and 6 tablet answering units at 4747 Troost to provide video confirmation and controlled access for building guests

Registrar Services

Network Architecture is responsible maintaining UMKC's consolidated domain name registration service. This includes registering and renewing .com, .org. net, etc. domain names, SSL certificates & DNS records and other services for these domains.

- Domains managed = 145

Highlights and key initiatives
- 12 domain names registered or renewed for 5 departments
- Total registration duration = 31 years

Information Access

Database Server Design, Implementation & Administration:

- Administration and support of all central campus Oracle servers
  - Oracle Enterprise Manager Cloud Control monitoring text and email alert notifications for server outages to DBA staff.
- Administration and support of all central campus MS SQL servers
  - Migrated all critical central campus databases from version 2008 to version 2017
- Administration and support all central campus MySQL servers
  - Implemented MySQL monitoring tool using Oracle Enterprise Manager Cloud Control which allows for more timely and robust outage notifications of out critical campus servers
- Administration and support of all central campus FileMaker servers
  - Upgraded FileMaker Server to version 17
  - Continual support and maintenance of the Office of Research Services lab application
- Administration and support of the central campus secured external facing Oracle server for third party vendor data collaboration
  - Continual support for third party vendor, Civitas to enable required access to campus resources
- UMKC Center for Economic Insight (CEI) Health Care Foundation Grant
  - Worked with several departments in IS and CEI to implement the second phase (Year 2) goals establishing the infrastructure for the metadata and data warehouse.
  - Loaded data sets in the database for this initiative.
  - This grant allows UMKC CEI to be the curator and cultivator of significant amounts of private and public data sets currently owned individually by several Kansas City institutions such as Children's Mercy Hospital, Mid America Regional Council (MARC), St. Luke's Health System and many others. The collection of this data to one accessible system owned and operated by UMKC CEI will then be available to a vast number of researchers at hundreds of organizations in the Health Care Coalition to help further their medical and/or geographical research.
- Administration and support of all CHI/HealthFacts and RedCap database servers
  - Continual configuration changes and SQL tuning for the HealthFacts research database
- Administration and support of all School of Dentistry Axium and additional database servers.
- Administration and support of all UMKC Data Warehouse Oracle servers
  - Worked with Data Warehouse staff on several implementations and enhancements to DW data availability and reliability
- Administration and support of all UMKC OneCard Office's CBORD Gold Application Oracle server instances
- Administration and support of all UMKC Police Department database server instances
- Administration and support of the UMKC Center for Economic Insights database server instance which is the backend for their CityScope/MetroScope application
- Administration and support of the School of Computing and Engineering MySQL Server
  - Created student MySQL user accounts for Fall semester SCE classes
- Administration and support of the UMKC Counseling, Health, Testing & Disability Services SQL Server
  - Installed and configured the SQL Server database for their scheduler application

Software Design and Development:

Maintenance & Support was provided for the following software applications & websites during this period:

1. Canvas Gradebook Export
2. Exam Scheduler
3. Kasey-Kudos
4. UMKC Lookup
5. Bloch Appointment Scheduler
6. TerraDotta Billing Administration
7. IAP Terms of Use
8. IS LabTime
9. UMKC-Box
10. Commencement
11. MACS/IS Work Orders
12. Bloch Regnier Hatchery
13. Writing Studio Appointment Request Form
14. IS Change Management & Outages
15. Diversity Event Registration
16. UR-Links
17. ALEKS - New Production Site
18. Bloch Event Request
19. Cashiers Service Request
20. Civics Exam Data Feed into UMDW - Multi-Campus Feed
21. dbTracker
22. DL Metadata
23. Exit Exams
24. Foundation Service Request
25. HLC Directory
26. IA Schedule
27. IS Retiree Email
28. IS Service Orders
29. LMS Access Checker (LACH)
30. Property Registration
31. QR Scanner Kiosk
32. RooRequest
33. Scantron Orders
34. SEARCH & SUROP
35. Special Accounts
36. Studio Logs
37. Business Travel Request
38. Zabbix
39. UMKC QR
40. Canvas Data Feed
41. Starfish Data Feed
42. Digital ID Feed to CBORD & AWS
43. Civitas Illume PS Views

44. CourseLeaf Catalog Data Feed
45. ALEKS Data Feed
46. TerraDotta Data Feed
47. TerraDotta Billing Feed
48. RooWriter Score Feed
49. RooWriter Billing Feed
50. RooEval
51. RooWriter
52. Canvas Request System
53. eLearning Tracker
54. Faculty Credentialing Database
55. IS Shift Tracking System
56. UMKC Attendance
57. UM System IT Inventory Database

UM System IT Consolidation:

- An Information Access representative serves as the chair for the Applications & Development committee.
- Provided campus representation on the following working groups:
  - UMS IT Integrations working group
  - UMS IT Custom Applications working group

Software Administration:

- Served as technical contact for the CourseLeaf Catalog software
- WordPress management, setup and administration.
- Trumba Calendar management, setup and administration.
- CVENT eCommerce.
- Weekly termination reports processing.

Scanning Services:

Generated several detailed reports for departments based on their evaluation scan data.

Exam Scans by School

- College of Arts and Sciences - 152
- Henry W. Bloch School of Management - 105
- School of Computing and Engineering - 1
- Conservatory of Music and Dance - 4
- School of Education - 6
- School of Law - 20
- School of Nursing - 5
- School of Biological and Chemical Sciences - 173
- **Total Exams Scanned: 466**

Security

No updates this period.

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, providing assistance and technical support for campus IT Liaisons, as well as supporting research computing needs.

Server Virtualization

- Upgraded all vSphere hosts to ESXi 6.5 U3.
- Provisioned approximately 10 new virtual servers.

Storage/SAN/Backup

- Upgraded firmware on Nimble
- Began VM offsite backup to AWS Glacier
- Migrated servers and storage to new Cisco spine/leaf environment

Miscellaneous

- Remedied and closed 550+ support tickets. Ticket completion times continue to be held low, and customer surveys show very high ratings
- All Windows WordPress instances migrated to Linux for uniformity, performance, and security
- Multiple server OS (Windows and Linux) and application upgrades including AIMS, CBORD, Cadence, Synopsys, Titanium, TutorTrac, TMA, Redcap, Bitbucket, RooBox, Confluence, and JIRA
- Shibbolized multiple websites and new services allowing single sign-on
- Continued migration of Microsoft Windows Server 2008/2008R2 systems scheduled to go end-of-life in January 2020 to a more modern version of Windows (85% complete)
- Worked on many aspects of the AD Consolidation Project including testing application compatibility with users spanning domains
- Simple Linux Enterprise Deployment System (SLEDS) put into production for Linux desktop imaging including support for Ubuntu and CentOS
- Facilitated several HPC basic and advanced training sessions with MU RCSS and UMKC research groups
- Expanded capabilities of the Linux developer shared environment (Sirius) to provide MySQL command-line tools
- Developed framework to upload data to AWS S3 buckets on a schedule
- Performed HealthFacts storage provisioning and raw data load for latest version, in conjunction with the Center for Health Insights (CHI)
- Assumed responsibility for Biology and Chemistry NMR Linux workstations, performed security and OS release upgrades including migration from RedHat to CentOS
- Upgraded Bomgar virtual appliance to new Virtual Machine and upgraded/migrated all 5 sites to 19.1.5
    - UMKC
    - UMSL

- - MS&T
  - Columbia
  - UMKC Dental
- Integrated Linux workstation/server login and startup/shutdown tracking with Users and Computers Activity Report
- 2 staff attended MU Cyberinfrastructure Day
- Deployed Omeka-S web application for University Libraries
- Implemented new user storage quota on the Tux cluster to help control space usage
- Upgraded ColdFusion servers to ColdFusion 2016 Remedied and closed 711+ support tickets.
- Ticket completion times continue to be held low, and customer surveys results show very high satisfaction
- Upgraded standalone WordPress Linux server operating systems from 16.x to 18.x
- Multiple application upgrades including Cadence, Synopsys, Redcap, Bitbucket, Confluence, and JIRA

- Shibbolized multiple websites and new services allowing single sign-on
- Migrated 20 remaining Server 2008/2008R2 systems scheduled to go end-of-life in January 2020 to a more modern version of Windows.
- Sojourner Osler Electronic Medical Records instance at osler.umkc.edu turned over to Medical School for testing
- Upgrade of Joey research cluster to OpenHPC v1.3
- Replaced CentOS 6 NIS server for Info shared WordPress environment with IPSec secured Ubuntu 18.04 NIS server.
- Deployed SLEDS (Simple Linux Enterprise Deployment System) 2.0, Linux desktop/server deployment system allowing for standardized OS deployment
- A team member achieved Linux+ Certification
- Upgraded Joey cluster head node from physical to virtual allowing for greater performance/reliability and increased storage
- Deployed KC-CHI-GitLab for CHI Insights platform code repository management
- Production go-live of Omeka-S (Linux/PHP/MySQL) instance at exhibits.library.umkc.edu
- Assumed maintenance and support responsibility for Chemistry NMR Linux workstations and converted workstations from RedHat Enterprise Linux 6.x to CentOS 6.x saving licensing costs
- Deployed encrypted-at-rest storage and secure data transfer process on CHI Insights platform for identifiable data from Truman Medical Center
- Bomgar software upgrade coordination across all support sites from v19.1.x to v19.2.x and appliance release upgrade from v5.4.x to v5.5.x

Appendix A

Individual Project Updates – Completed Projects

P220 – Data Center Switch Refresh (DSR)

This project upgraded the existing Administrative Center and Newcomb Hall data center networks. The new networks utilize a "spine and leaf" design allowing us to purchase the needed number of interfaces while allowing for easy expansion for the future. The new network equipment greatly increased the number of available 10 GB copper and fiber interfaces and also supports 40 GB & 100 GB interfaces where needed. The new "spine" switches are geographically separated across the two data centers. This equipment also allows us to implement a software-defined network (SDN) features as needed in the future. The switches were installed and configured during this review period and the project was completed.

P251 – IS Lab Upgrades

This project developed lab-specific designs and associated costs for converting all (14) IS computer lab environments from the Netbotz surveillance system, which was the end of life, to the CBORD NICE platform, which is the current campus standard. During this review period, we received several cameras, procured licensing and configured all existing and new cameras in the Nice/Qognify system, upgraded/replaced Windows7 PCs with Windows10, installed the NiceVision Control application where needed on PCs, and decommissioned Lenel/Netbotz cameras and servers.

P284- CourseLeaf CLSS

CourseLeaf is an online class scheduling and reporting module that streamlines the academic course planning and scheduling process for all constituents in one central tool. The CourseLeaf Section Scheduler (CLSS) module provides an end-user friendly interface for academic units and departments to determine their class offerings each term, including inputting, editing, validating, approving, and updating course section information. During this review period, the pilot group continued testing, IS facilitated and coordinated in-person training sessions with the vendor and admins/users, and coordinated an issue-tracking pilot with the vendor and admins. The module went live in October 2019 and the project was completed.

P293 – ILE Classroom Upgrades FY19 IS Funded

As part of our continual process in keeping the highest quality student experience in our student classrooms and learning spaces, IS upgraded 6 ILE rooms in FY19 to HD widescreen digital video systems with enhanced audio processing, web conferencing, and wireless collaboration features. During this review period, we partnered with Campus Facilities Management to install infrastructure for the systems and installed the new equipment in various spaces in Haag Hall, Royall Hall, Grant Hall and Cockefair Hall.

P304 – Academic Works

AcademicWorks Scholarship Management and Donor Reporting Platform serves as a catalyst to improve student access to scholarships, enhance cross-functional visibility throughout the process, and revolutionize donor reporting. This platform allows colleges and universities to house information on all scholarships and scholarship recipients while allowing all users to have real-time access to the information needed to streamline the scholarship and donor reporting process. During this review

period, we activated a CUUI add-on allowing students to auto-match to all scholarships available, continued testing the system, entered all remaining awards into the system, and fixed all API and data integrity issues. All IS work concluded and the project closed in November 2019.

P311 - Dental School Camera Upgrades
This project replaced an upgraded approximately 23 old antiquated security cameras at the Dental School to work in the new Cbord/NICE security system. During this review period, IS designed camera placement and worked with the UMKC PD to ensure optical coverage, all the cameras were installed and configured, and this project was completed.

P325 – Pierson Auditorium Projector Upgrade
This project upgraded the projectors in Pierson Auditorium as well as replacing the user interface. During this review period, we completed programming, fixed all bugs and the project was closed.

P328 – Stoup Courtroom Upgrade
The project upgraded the technology equipment in the Stoup Courtroom of the Law School. During this review period, we installed all equipment, programmed and fixed all bugs, and trained the client to complete the project.

P331 – CEI HEF Grant (Year 2)
This project involved coordinating IT resources to aid in the development of a large-scale geodatabase for KC Health CORE that aggregates a variety of social determinants and health data for the Kansas City community. While the overall CEI HEF project is not complete, IS PM engagement ceased at the end of 2019, and CEI entered an MOU for IT services related to this project with relevant IS groups. During this review period, IS worked with CEI to develop a database back-end structure, and front-end interface for their project work. We also migrated several VMs to new hardware that supports their licensing requirements.

P335 – AC Visix Room Signage
IS set up the AC Conference Center as a test case to see if this product will work well to roll out campus-wide. We installed 8 Visix room signage signs that pull data from Ad Astra and Outlook scheduling systems. These screen displays for room signage cost significantly less compared to using an iPad or some vendor solutions. During this review period, all the hardware and software was installed, and our Foundation Services team worked with the vendor for server setup and this project was completed.

P341 – Civitas to Canvas
This project included working with Civitas and UMKC's departments of Academic Affairs, Information Access, UMKC Online, and Registration and Records to integrate Civitas with the Canvas LMS system. During this review period, IS coordinated meetings between UMKC teams and the Civitas technical representatives, and worked with Academic Affairs, Registration and Records, and the Canvas administration teams to plan and implement the required integrations. The integration was performed and tested, client training was scheduled and performed, and the project was completed successfully.

P342 – CBORD Upgrade to Gold
This is a project upgraded the existing CBORD ID Works card production system, which was 12 years old, with Datacard TruCredential and Datacard SD460 card printers. New features and enhancements include TruCredential, which provides flexibility to capture student images and date anywhere on campus using remote stations, tablets, or smartphones. This software also enables us to issue ID cards

with smart chips, magnetic stripe, radio frequency or other machine-readable technologies. During this review period, we converted the card system to CS Gold, coordinating the training of staff, and decommissioned the old CS Odyssey servers.

P344 – WebEx to Zoom

This project transitioned our primary supported web conferencing tool from Cisco WebEx to Zoom. UM System purchased Zoom for all four campuses, and as a result, UMKC expects cost savings associated with decommissioning WebEx on our campus. During this review period, we communicated with existing WebEx users and helped to transition those users to Zoom. We also developed campus-wide communication and support documentation for use of Zoom as a web conferencing tool and the project was completed.

P345 - UMKC PD Mules

The UMKC PD was accessing the REJIS system to lookup license plates via a VPN connection between UMKC/KCPD. The KCPD is no longer supporting REJIS for local agencies and directly connecting to REJIS is too costly an option for UMKC. We replaced the existing system, REJIS, with a new system called MULES, connected to the Missouri Highway Patrol. During this review period, IS decommissioned REJIS, reconfigured the firewall and the project was completed.

P347 – Berkley Center Display Addition

This project is adding a display and computer to the lobby of the Berkley Center. During this review period, the new TV display and PC were installed, and the client was trained on the equipment to complete the project.

P349 – Scofield 307 Conference Room Upgrade

This project added a conference space to the Dean's Conference Room in Scofield 307. During this review period, IS installed several data drops and installed the equipment consisting of a camera, 86" monitor, microphones and speakers, a touch panel, and an audio processing system. The client was trained to complete the project.

P351 – Oak Hall Renovation

CFM renovated the Oak Residence Hall to repair water damage and eliminate a mold issue. IS was tasked with removing network gear to allow the work to be completed and then re-install the equipment when the work was finished. During this review period, IS reinstalled IT equipment in several IT closets and rooms in the residence hall and the project completed.

P353 – SRC Scoreboard Addition

The Athletics department added (4) new scoreboards to the main basketball court in Swinney Recreation Center. During this review period, IS received finalized plans, coordinated with several vendors to complete IS scope, including moving cabling for new floor boxes, installing a rack in the IT closet and upcoming computer support to complete the project.

P357 – HR Conference Room Addition

This project added a conference/collaboration space for the HR department in AC 229C. During this review period, IS ordered, received and installed equipment consisting of a display, PC and several accessories as well as trained the client on equipment to complete the project.

P358 – 4747 Troost Security Enhancements

A security concern among tenants of the 4747 Troost building led to the tenants wishing to restrict access to only those with legitimate business at the facility. During this review period, IS ordered and installed a video doorbell system for the building and ran network cable throughout the building in various places to supplement existing cable and support the new equipment. Video phone equipment was purchased and installed for several tenants in the building, and tenants were trained on proper use of the doorbell and video phones.

P359 – Miller Nichols Library Security Camera

This project installed 16 new security cameras, 12 in Miller Nichols Library and 4 in the Health Sciences Library. During this review period, the Infrastructure team designed the layout, ordered and installed the cameras. The networking team configured and programmed the cameras and they were added to CBORD, the campus standard platform for video. The project was completed.

P361 – Paciolan

Athletics entered into an agreement with Paciolan to provide ticket scanning services, marketing, and fundraising support. Information services worked with Athletics to ensure proper network connectivity for the devices, installation and configuration of software as needed, and other tasks related to this project to ensure project success and this project was completed.

P368 – Administrative Center Lobby Security Camera

This project will install a new security camera in the AC west entrance lobby at the request of the UMKC Chief of Police. IS conducted a site visit to determine location, selected the camera to be purchased and completed programming and installation and the project completed.

Individual Project Updates – Implementation Phase

P174 – SCE Educational and Research Center

This is a project to build a new multi-story building addition to our existing Computer Science & Engineering building, Flarsheim Hall. The IT/AV scope includes building-wide network infrastructure, IT closets, a VR showroom and computer lab, a high-performance computing teaching data center and computer lab, a motion capture lab, and unmanned systems lab, and renewable energy lab and several smart classrooms and collaboration spaces, and building-wide digital signage, and a new CBORD access and surveillance system along with the conversion of existing Lenel systems to CBORD in Flarsheim Hall prior to construction. During this review period, IS completed several design/estimate meetings with various clients and vendors, finalized the estimate, and sent it to CFM for approval.

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.   During this

review period, we scheduled and completed all conversions for those department that opted-in. We also began decommissioning and powering down servers.

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. During this review period, planning for MFA implementation began, and employee accounts were synced with O365. UMKC project team members coordinated campus communication, including emails, web page creation and edits, and developed support processes and documentation related to new services and changes.

P305 – AD Consolidation

System-wide IT is currently engaged in a project to consolidate each of the University campuses user accounts into a single, shared domain. This is an effort that will reduce costs, strengthen support infrastructure, increase security, and result in a more efficient IT environment. This consolidation will ease the adoption of cloud services, off-the-shelf software, and promote the sharing of common resources system wide. As part of this initiative Information Services played a key role in ensuring success at UMKC. A few of these activities include:

- Migrated 100% of Faculty, Staff, and Students to UM-AD Domain
- Updated multiple online resources and FAQ to support the migration process
- Expanded remote staffing levels by cross-training existing staff during the user migrations to assist Faculty, Staff, and Students.
- Participating in weekly System-wide calls

P318 – School of Pharmacy Video Distance Classrooms Upgrade

The project is the redesign and update of current video classrooms to reduce overall operating costs while maintaining current functionality and support levels. During this review period, the client approved the IS estimate, we refined the timeline, ordered and received equipment and began installation for Phases 1 and 2 of the project.

P324 – UPS Batteries

This project will replace failing/end-of-life batteries and UPS's as needed in IT rooms around campus as well as some of the larger building UPS's where needed.   During this review period, we installed several small IT closet UPS's at 4825 Troost, Flarsheim Hall, Health Sciences Bld., Oak Hall, Swinney Recreation Center, Cherry Hall, Fine Arts Bld., Grant Hall, School of Medicine, Miller Nichols Library and the Performing Arts Center. The project was then put on hold due to budget cuts.

P336 – AchieveIt

UM System has mandated that all campus partners author strategic plans for 2018-2028. The PM is the point of contact between UMKC and System regarding AchieveIt, the system that tracks progress related to strategic plan goals and metrics. The PM also updates the metrics as indicated and ensures all other data input occurs in a timely manner. During this review period, we developed processes for timely updates. We also developed, implemented, and processed a survey to campus administrative leadership regarding activities performed by their units that could help drive implementation of the University strategic plan.

P337 – OCR Brainware

UM System has purchased a new product, Brainware OCR, for all four UM System campuses. In the first phase, it will be used for transcripts. This product will be supported centrally by the Perceptive Content (ImageNow) team. During the review period, we began testing this software, trouble-shooting issues and preparing for deployment.

P340 – Project Online

UMS-IT is in the process of deploying O365 for faculty/staff. O365 offers Project Online at an annual cost of $2,335 for all four campuses, versus the $31,000 DoIT pays for PPM Pro today. In addition to cost savings, Project Online offers integration with O365's Kanban-like Planner tool and extra-cost PowerBI Pro. This project includes implementation for the four-campus IT departments to replace Planview PPM Pro. During this review period, we completed 2 weeks of vendor-led user training, piloted the software and went live in August of 2019.

P346 – AC Data Center Cooling System

This project is to alleviate temperature control issues in the Administrative Center data center on the UMKC campus. During this review period, we completed Phase 1 of this project – purchase and installation of a Spot Cooler temporary cooling unit. We also began Phase 2 of the project to design and implement a permanent cooling solution and worked extensively with UMKC's Campus Facilities Management team and outside engineers to design a long-term, cost-effective cooling solution.

P348 – Building Switch Refresh

This project involves replacing old network switches in IT rooms around campus.   Five buildings will be upgraded on this project: Katz Hall, Student Union, Johnson Hall, Miller Nichols Library and the Health Sciences Building. This keeps the network up to current standards, provides greater bandwidth and more reliable end-user network connections. During this review period, we received the switches for all five buildings and began configuration.

P354 – School of Med 3rd Floor Addition

This project is adding ILE classroom-type technology to a newly renovated space on the 3rd floor of SOM. During this review period, we provided the client with a finalized estimate, received approval, ordered and received equipment and worked with CFM to accommodate major structural design changes to the space.

P362 – IS Work Order Form

This project was to create a service request tool for Networking and Telecom in Cherwell to replace the previous MACS tool which was running on unsupported code. During this review period, we redesigned the service catalog and began the process of developing and creating the specifics in Cherwell with the CTS/AV, Networking, Support Services and leadership teams.

P364 – Durwood AP Installation

Chancellor Agrawal requested that the wireless connectivity be improved at Durwood Soccer Stadium. This project will assess the environment to determine the best wireless solution and will then implement that solution. During this review period, networking technicians performed analysis on the

Durwood field and associated buildings and designed a solution that would best meet the needs of the space.

P367 – Keemotion

This is a project to install a camera system in the Swinney Recreation Center primary and practice basketball courts that ties to web-based software for use by Athletics staff as a training and coaching tool. IT worked with Keemotion to determine placement of cameras and servers, and to run the appropriate data connections to desired locations. We also coordinated installation of Keemotion equipment in SRC with Athletics and SRC staff.

P369 – Cliff Benefit Tool

This project is a prototype online calculation tool for low-income families to understand the effects of wages on their government benefits has been developed as part of a hackathon sponsored by Commerce Bank. IS will assist in deployment of this tool in two phases. Phase I will be to get the tool up and running with current data. Phase II will involve expanding data and rolling out to a larger audience. During this review period, IS installed the app on dev servers, completed the security scan, worked with Marketing & Communications to complete branding and the tool was moved into production to complete Phase I.

Individual Project Updates – Development Phase

P300 – Oak Place Water Damage

This is a project to remove and replace IT Networking & Telecommunications equipment so renovations/repairs can be made to the water damaged Oak Place apartments. Scope included removing all in-room access points from students' rooms, demoing and removing all equipment in IT closets, then reinstalling all the same after renovations are finalized.   During this review period, we began meeting with CFM and the hired contractors and designed and finalized the IS estimate for IFS and Networking.

P355 – InnoSoft Fusion

UMKC's Swinney Recreation Center would like to replace their current recreation management system (RecTrac) with a new product, InnoSoft. As the product will contain student data, the project will work with teams from IT, Registration & Records, Security, and others as they are identified to implement the software for a July 2020 launch. During this review period, we met with SRC staff to determine timelines and IT needs.

P360 – Miller Nichols Library 114 AV Upgrade

This project is to upgrade the audio video gear and provide distance education/learning options in this space. During this review period we met with the departments to get room requirements and contacted Campus Facilities about needed electrical work and furniture options.

P363 – Union Station AV Upgrade

This project is to upgrade and add new audio-visual gear to several rooms at Union station for training and distance learning.   During this review period we met with the client to define scope and began designing the needed system and equipment.

P371 – Qognify Camera Conversions

This project is to determine the cost for Qognify to move UMKC's cameras (422 as of 11/14/19), including a phased-approach recommendation, migration and training in order to migrate to the latest version (from Qognify to VisionHub). Additionally, converting all remaining cameras to this system, including the dorms, Animal Labs and Bookstore. During this review period, IS began quoting the systems for the dorms, Animal Labs and Bookstore and compiling the cost to upgrade the UMKC campus to Qognify/Vision Hub to meet the storage needs of our campus.

P372 – Bloch School of Business Rm 8 AV Upgrade

This project is to upgrade the audio-visual gear in this room for distance educations. During this review period we met with the client to review requirements and needs for this space and starting design on the needed systems.

P373 – CBORD/Mobile Pay Upgrades

This project is to work with various UMKC units to determine card reader inventory, work with vendor to determine the cost to replace all mag stripe card readers across campus with proximity cards/Mobile ID and plan/coordinate a phased migration. During this review period, IS and the UMKC Building Security Committee worked with the OneCard Office to complete and inventory/use cases spreadsheet for the vendor for quoting costs for conversion.

Appendix B

Building Cable Plant Infrastructure Upgrades

UMKC IT Infrastructure Status

Building Name

Biological Sciences — 100% Complete (2012)
Bloch Executive Hall — 100% Complete (2013)
Cockefair Hall
Free Interprise Research Center
Medical School — 100% Complete
Newcomb Hall — 100% Complete (2013)
Parking Garage (Cherry Street) — 100% Complete (2012)
Residence Hall (Oak Place Apts.) — 100% Complete (2014)
Residence Hall (HH Troost Ave.) — 100% Complete (2017)
Scofield Hall
Spencer Chemistry — 100% Complete (2019)
Student Success Center — 100% Complete (2012) / 100% Complete (2019) / 100% Complete (2018)
Swinney Recreation Center
Whole Foods Office Space

20% Complete / Projected Completion (2019/2020)
0% Complete, Projected Completion (2020)
0% Complete, Projected Completion (2021)

YEARS: 2012 2013 2014 2015 2016 2017 2018 2019 2020 2021 2022

Today — Monday, September 16, 2019

Key
Green are Completed Projects
Red are Planned Projects with a Projected Completion Timeline

Information Services – Infrastructure Services