Accomplishments Report
Information Services
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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.

2018 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

2018 IS PROJECT LIST & POINT PERSON

- Campus New Construction/Renovation – Guggenmos/Technology Management Services
  - Whole Foods Development (Student Disability Services, Student Health, Counseling Center)
  - Chemistry – Biology Renovations – Phase 2
  - SCE Educational and Research Center
  - Bloch Heritage Hall Building Renovations
- Academic Works – Guggenmos/Technology Management Services
- Center for Academic Development HCF Grant – Guggenmos/Technology Management Services
- Oak Place Water Damage – Guggenmos/Technology Management Services
- Performing Arts Center Infrastructure Upgrades – Guggenmos/Technology Management Services
- Campus Building Security – Guggenmos/Technology Management Services
- Rave Guardian Deployment – Guggenmos/Technology Management Services
- Smart City Kiosks – Guggenmos/Technology Management Services
- Scofield Hall Infrastructure Upgrades – 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
- Distribution List Management – Kurup/Information Access
- Generic/Resource Account Management – Kurup/Information Access
- Academic Credentialing Database – Kurup/Information Access
- MySQL 5.7 Upgrade - Vishal Kurup/Information Access
- Filemaker 16 Upgrade – Vishal Kurup/Information Access
• Oracle 12.2 Upgrade – Vishal Kurup/Information Access
• SQL Server Upgrade – Vishal Kurup/Information Access

2018 Shared Services Project List

• Accounts Management – Goodenow/Reisenbichler/Kurup – Information Services
• Establish Enterprise Architecture – Schonemann/Network Architecture
• UM Network Architecture – Schonemann/Network Architecture
• Implement Cherwell – Phase 1 – Reisenbichler/Support Services
Executive Summary

Information Services is a strategic asset for UMKC’s missions of teaching and learning, research, service and economic development. We continued to make progress toward our defined goals and this document details the progress we have made during the last half of 2018.

During this past review period, IS Support Services had over 10,600 individuals use computing sites (mainly computer labs) and over 11,200 logins to our remote lab options.

IS coordinated the purchase of over $2.2M of IT hardware and software. This represented over a 10% decrease from the same time last year as additional cost control mechanisms were put in place across campus.

Support Services moved forward with a recommendation from an external consulting group and leadership to consolidate two support teams. The staffing change was recommended to increase efficiencies. On October 1, the new Technology Support Center went live. This new group was comprised of two teams - the Call Center and Desktop Support.

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. 740 new streaming media entries (videos, images and audio clips), were added to Kaltura by faculty and/or students. 743 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 including the following:

- Scofield Hall Infrastructure Replacement
- HCF Research Grant
- SCE Educational and Research Center
- Building, Network and Data Center Switch Refresh projects
- Active Directory Consolidation
- Cherwell implementation and upgrade
- LENEL to CBORD transition
- ILE Classroom upgrades

Efforts of the Information Access Division were notable in many areas including research and software. IT has collaborated with the Center for Economic Insights to create an infrastructure for the Kansas City region to curate and private and public data and made available to researchers for further medical and geographical research.

Information Access continues provide scanning services for the campus supporting almost 500 different examinations for ten academic units. IT worked on 42 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 replaced the campus HPC teaching cluster and resolved over 600+ tickets from the campus for system administration requests. The number of virtual servers on campus increase 4.5% in this timespan.

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.
Computing Facilities

We had **10,619** distinct individuals use computing sites between 7/1/2018 and 12/31/2018. 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 **1,348** distinct individuals who logged into RemoteLabs **11,268** times.

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.

- 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 in several facilities over Winter Break:

- Met budget reduction goal of 30% while only reducing lab availability by 4% by creating a new staffing model.
- Assisted with selection of new scanner type for labs.
- Tested new printers to ensure compatibility with associated toner and updated related internal reference web sites.
• Created lab-specific documentation for new Cherwell Service Management system and assisted with launch of new problem reporting tool amongst lab Student Assistants.
• Began work prepping for new Knowledge Base.
• Represented IS-labs at a career fair.
• Provided multiple detailed reports on equipment and operation costs for general use labs.
• Maintained sufficient student employees to staff labs by processing over 95 applications for Student Assistant positions, conducting over 85 computer skills tests, interviewing 61 prospective new hires, and hiring 12 new Student Assistants for IS-managed labs.
• Ensured that all Student Assistants completed Title IX and other required training.
• Processed over 3,200 shifts and supervised over 9,300 Student Assistant person-hours.
• Completed reviews for 40 Student Assistants to keep employee performance at optimal levels.
• Supported student-printing needs in the general-use labs by keeping supplies on hand and printers ready for use. Over 95,000 print jobs were printed in IS-managed general use student computer labs, totaling over 652,000 pages.
• 5,404 individuals used the general-use student computer labs during this time period:

<table>
<thead>
<tr>
<th>Open-Use Labs</th>
<th>Individuals</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bloch 110</td>
<td>524</td>
</tr>
<tr>
<td>Health Sciences 3304</td>
<td>834</td>
</tr>
<tr>
<td>Miller Nichols 2nd Floor</td>
<td>1,304</td>
</tr>
<tr>
<td>Royall Hall 303</td>
<td>2,163</td>
</tr>
<tr>
<td>Student Union 210</td>
<td>2,863</td>
</tr>
</tbody>
</table>

• Assisted with fiscal planning by providing multiple reports on resource utilization and associated costs to various individuals, groups, and departments.

**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.

**Johnson Residence Hall**

• Supported student-printing needs in the Johnson Residence Hall computer lab by keeping printers ready for use. Nearly 3,600 print jobs were printed in the computer lab, totaling almost 21,000 pages.
• 288 individuals used the Johnson Residence Hall computer lab during this time period.

**Special Events**

Information Services assists the campus with special events that require computing resources. These resources may include guest accounts, specialized software, or access to wireless, printing, teaching, or other computer resources.
• Staffed registration sessions during six new student orientations, including providing printing and guest account resources.
• Assisted with Unionfest activities.
Totals and Trends in IT Procurement

- Purchased roughly $2,205,000 worth of IT hardware and software, including computers, tablets, printers, peripherals, specialty systems, software, web services, subscriptions, service warranties, maintenance agreements and usage fees
  - This represents a 10% decrease in total spend over the same period one year ago when $2,462,000 worth of products and services were purchased
  - Software purchases increased by 28% as measured by spend, totaling a little of more than $1,600,000
  - Hardware purchases of roughly $603,000 reflect a 50% decline over the previous period one year ago
  - This may be largely attributed to five factors
    - Increases in software costs
    - Continued improvement in tracking software expenses
    - Deferred replacement of computer hardware due to tight budgets
    - Changes to the Workstation Replacement Program that removed some of the previous incentives to replace hardware in a timely manner
    - Increasing the lifecycle target for desktop computers from four years to five years
- The following chart shows the IT spend over the last ten full fiscal years


<table>
<thead>
<tr>
<th>Fiscal Year</th>
<th>New Licenses Added</th>
</tr>
</thead>
<tbody>
<tr>
<td>FY2015</td>
<td>850</td>
</tr>
<tr>
<td>FY2016</td>
<td>1297</td>
</tr>
<tr>
<td>FY2017</td>
<td>1281</td>
</tr>
<tr>
<td>FY2018</td>
<td>1595</td>
</tr>
</tbody>
</table>

- FY2018 witnessed the first decline in IT spending since FY2010
- While the single measure of total spend is in decline, the overall activity and productivity of the IT Procurement unit over the last few years reflects a significant and sustained increase in activity
• While both Hardware and Software IT asset procurement trends show strong trends over the last decade and share many similarities in terms of product selection, end-user consultation and the actual purchase process, the largest part of the dramatic change for this unit in recent years is due to Information Services playing the central and pivotal role in software acquisition.

• The software acquisition process increasingly involves coordinating and communicating through a complex review and approval matrix including Grant Program Managers, Departmental Fiscal Officers, UM Supply Chain, UM Legal, UM Risk Management, the UMKC Chief Information Officer, the UMKC Information Security Officer, the UMKC Registrar and the Vice President for Information Technology.

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 are the preferred computer providers for which UMKC has large-scale Volume Purchase Agreements and account for 71% of the total IT hardware spend.
  - This represents a 15% drop from the previous year.
  - This reflects that more and more computers are being retained for longer lifecycles as well as an increase in spending for specialty hardware items.
  - The following table lists the Top 5 IT Hardware Vendors by total spend:

<table>
<thead>
<tr>
<th>Vendor</th>
<th>Spend</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dell</td>
<td>$342,700.90</td>
</tr>
<tr>
<td>Apple</td>
<td>$81,037.37</td>
</tr>
<tr>
<td>Connection</td>
<td>$42,307.18</td>
</tr>
<tr>
<td>Sirona</td>
<td>$32,020.00</td>
</tr>
<tr>
<td>WWT</td>
<td>$19,189.10</td>
</tr>
</tbody>
</table>

- The distribution of IT Software spending over primary vendors continues to demonstrate the diversity of the market.
  - This six-month period introduced total of 64 new product titles to our software environment.
  - The following table lists the Top 10 IT Software Vendors by total spend:

<table>
<thead>
<tr>
<th>Vendor</th>
<th>Spend</th>
</tr>
</thead>
<tbody>
<tr>
<td>Microsoft Corporation</td>
<td>$340,488.82</td>
</tr>
<tr>
<td>Civitas Learning, Inc</td>
<td>$167,564.00</td>
</tr>
<tr>
<td>Internet2</td>
<td>$167,174.50</td>
</tr>
<tr>
<td>Qualtrics Labs Inc</td>
<td>$107,508.20</td>
</tr>
<tr>
<td>ProQuest</td>
<td>$98,461.73</td>
</tr>
<tr>
<td>Zap Solutions, Inc</td>
<td>$80,000.00</td>
</tr>
<tr>
<td>ExamSoft Worldwide, Inc</td>
<td>$66,625.00</td>
</tr>
<tr>
<td>Exan Enterprises</td>
<td>$59,815.00</td>
</tr>
<tr>
<td>Ascend Learning Holdings, LLC</td>
<td>$53,226.25</td>
</tr>
<tr>
<td>ELearning Innovation</td>
<td>$53,000.00</td>
</tr>
</tbody>
</table>
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 – 729, an increase of 8.8%
- Product Titles – 1402, an increase of 7.8%
- Licenses – 11,993, an increase of 18.4%

**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 2019 and *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, 2018)](chart)

**Workstation Replacement 2019**

- The first half of each fiscal year culminates with the Workstation Replacement Program (WRP)
- Its primary goal is to replace faculty/staff workstations on a four- or five-year lifecycle to benefit productivity and mitigate security concerns endemic to older operating systems.
- Adherence to a small number of standard systems and ordering in large quantities allows IS Support Services to negotiate favorable pricing
  - Changes to funding for WRP had an immense effect on the total number of systems replaced
- The FY2018 WRP accounted for the replacement of 530 systems at a total spend of about $556,000; in comparison, the FY2019 totals were 181 systems at a cost of around $190,000.
- This represents a decrease of roughly 65% from the previous year.
- This established record low participation rate in the 20-year history of the Workstation Replacement Program.

- A brief summary of WRP spend patterns over recent years

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

Highlights and Key Initiatives

Re-aligning IT Services Agreements

As part of the transition to the new strategic vision for UMKC and the Resource Investment Model (RIM), IS began the process of reviewing IT service agreements this fall. The original service agreements were written at a time when IS was absorbing support and staffing and funding allocations were different. The shift to the new resource investment model required that we remap our approach and transition IT service agreements to reflect these funding changes.

Under the new model, IT services consumed by all departments would become centrally funded, standard services. Department-specific or custom IT services, such as departmental labs and discipline specific software would be paid for by the unit. A costing formula was developed for custom services to ensure that fees were consistent across departments.

IS met with each academic unit to discuss these changes and to inquire about IT service needs going forward. Later in the year, departments were asked to make a decision and confirm costs and their IT services for the upcoming fiscal year.

The results of these collaborative discussions is a living breathing document detailing custom services and their associated costs. IT Services will be discussed with the departments and updated annually.

Implementing the Technology Support Center

Support Services moved forward with a recommendation from an external consulting group and leadership to consolidate two support teams. The staffing change was recommended to increase efficiencies. On October 1, the new Technology Support Center went live. This new group was comprised of two teams - the Call Center and Desktop Support. There was a significant cross-training effort that occurred during the fall timeframe to accommodate these changes as well as the staffing reductions that occurred during the same period, due to budget cuts. Cross-training efforts will continue throughout the coming months.

Financial Aid and Chemistry IT Support

IS Support Services absorbed additional support responsibilities this fall for UMKC’s Financial Aid department as part of the ongoing effort to increase efficiencies and centralize IT. As a first-step in this
process, IS conducted a complete inventory of Financial Aid’s computing environment including kiosks, computers, software, peripherals, the training classroom, etc. After inventorying the IT equipment, a detailed report that included life-cycle replacement recommendations was shared with the department.

Support Services will be managing IT support for this unit going forward. The department will continue to work on updating equipment and software.

No new additional technical staff were hired to support the 50+ computers in this area.

In addition to Financial Aid, IS began working with Department of Chemistry late last fall to support a new 24 station lab and will most likely support other areas within the department.

**Cherwell**

Phase I of the new IT Service Management solution was implemented during this past review period across all four UM campuses. For UMKC, Cherwell’s Incident Management component went live October 1. This initial phase brought new features and functionality to the campuses and replaced BMC’s Remedy incident management system. Phase II planning is underway and includes an upgrade from 9.3 to 9.5. Other functionality for phase II is still being discussed.

**Workstation Replacement Program**

The annual Workstation Replacement Program (WRP) underwent significant changes during FY19 due to budget cutbacks. The $1000 subsidy provided in past years for a new computer was reduced to $250. The life cycle of desktop computers was also extended from four years to five. The program continued to offer reduced volume pricing for standard University systems. Over 200 systems were purchased and will be installed in early 2019.

Windows 10. IS continues to rapidly migrate to Windows 10 in anticipation of the end-of-life of Windows 7 in early 2020. With a little over a thousand computers left to upgrade in 2019, this will be major focus after the WRP computers are installed.

IS has also moved to the latest build of Windows 10, 1809 as the standard and preferred version.

In order to provide more options for Faculty and Staff, we introduced a self-service model for Windows 10 upgrades. Faculty and Staff can now perform these necessary upgrades with just a couple clicks at a time that is convenient for them. While this is still a new process we have had many faculty and staff take advantage of the new upgrade option.
Mac OS. Over the last 6 months, the campus standard has shifted to Mac OS 10.14. The support team built new processes to support this new version.

In addition, we performed multiple JAMF upgrades, which is the back end solution that enables us to image and deploy software over the network.

IS also performed much of the planning and configuration to migrate the campus anti-virus from Microsoft SCEP (discontinued) to ESET in early January. This will impact about 650 Apple computers across campus.

Customer Requests

Over the last five years, the amount of technical requests for Support Services have fluctuated. During the last six months, we have seen a reduction in the number of support request numbers from previous years.

The lower request volumes can be attributed to many factors, the most relevant are:

- We guided all users who requested a password change to our SecureAuth Password website, enabling users to use self-service options to set passwords.
- The implementation of SecureAuth around myHR, which required employees to set their own passwords using SecureAuth and to use Two-Phase authentication to gain access.
- Minimal system outages.

![Customer Requests Per Month](image)

**Customer Requests for Five Years.**

<table>
<thead>
<tr>
<th>Year</th>
<th>Jan</th>
<th>Feb</th>
<th>Mar</th>
<th>Apr</th>
<th>May</th>
<th>June</th>
<th>July</th>
<th>Aug</th>
<th>Sep</th>
<th>Oct</th>
<th>Nov</th>
<th>Dec</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>2018</td>
<td>2598</td>
<td>1827</td>
<td>1629</td>
<td>1616</td>
<td>1458</td>
<td>1449</td>
<td>1485</td>
<td>2291</td>
<td>1616</td>
<td>1244</td>
<td>1111</td>
<td>1019</td>
<td>19343</td>
</tr>
<tr>
<td>2017</td>
<td>3879</td>
<td>2562</td>
<td>2335</td>
<td>2125</td>
<td>2072</td>
<td>2152</td>
<td>1799</td>
<td>3444</td>
<td>1676</td>
<td>1658</td>
<td>1487</td>
<td>1123</td>
<td>26312</td>
</tr>
<tr>
<td>2016</td>
<td>2837</td>
<td>2419</td>
<td>2314</td>
<td>2209</td>
<td>2034</td>
<td>2165</td>
<td>2183</td>
<td>4158</td>
<td>2354</td>
<td>2307</td>
<td>2241</td>
<td>2083</td>
<td>29304</td>
</tr>
</tbody>
</table>
Customer satisfaction continues to remain extremely high. Over the last six months, Support Services has a **96% Very Satisfied** rating. The following chart represents customer satisfaction data collected from surveys closed by Support Services for the period of July 2018 through September 2018.

![Support Services - Customer Satisfaction Rates](image)

**Technology Support Center (TSC)**

Since combining the Call Center and Desktop Support groups on October 1, IS Support Services has monitored the first contact resolution as a new metric to determine the effectiveness of moving to a more focused remote based support model. During these initial few months, the Technology Support Center had a first contact resolution of 82.6%, which is an increase in remote support.

- **Account Management**
  - Office 365 – The TSC continues to be the primary support contact for students using the Office 365 email system
    i. Set up 16 Office 365 email accounts for alumni in conjunction with the Alumni Association
  - Created 47 guest/ resource/ departmental accounts and worked with office of Operations and Administration to bill accordingly.
  - Worked with Admissions, Registration and Records and various UM Accounts teams to address SSO account creation problems and maintenance issues.
- **AIMS – Account Management tool**
  - AIMS updates designed to enhance performance and efficiency were tested and approved for production in August, October, and November.
  - The TSC tested and offered feedback to help refine the new tool throughout the second half of the year.
- **ITSM – IT Service Management**
  - Worked with ITSM Steering Committee, Service Desk Committee and technical teams to prepare for implementation of more modules
- Created new templates for the TSC to use when creating incidents
- Provided on-site training across IS and UMKC Central to introduce the new tool starting October 1, 2018.

- **SecureAuth – Two Phase Authentication Toolkit**
  - UM implemented SecureAuth around myHR on December 19, which required employees to set their passwords using SecureAuth and to use Two-Phase authentication to gain access. The TSC assisted customers with related issues.
  - Assisted with SecureAuth testing and offered suggestions to help refine procedures.

- **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.

- **Bomgar**
  - UMKC-hosted remote support solution used by UMKC, MST, MU, and UMSL
  - Coordinated support and instance upgrades as necessary.

- **Computing Equipment moves**
  - The Technology Support team assisted in numerous staff and computing relocations throughout this semester, including MComm, Administrative Center, Charter House, etc.
  - Supported accreditation efforts by moving and setting up equipment as needed
  - Moved costume shop computers to 4825 Troost
  - Moved several staff from academic units to MComm in support of their shared services initiative

- **Surplus Equipment**
  - Coordinated surplusing efforts throughout the semester with UM Procurement.
  - Cleansed the hard drives of numerous end of life computing devices in preparation for surplus.

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**Technology Support Center (TSC) Metrics from July 2018 through December 2018**

- The TSC created 8,766 requests.
- The TSC resolution rate over the last six months was 84%.

<table>
<thead>
<tr>
<th>Time Period</th>
<th>Total Number of TSC Support Requests</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q1 &amp; Q2 2016</td>
<td>12,300</td>
</tr>
<tr>
<td>Q3 &amp; Q4 2016</td>
<td>14,183</td>
</tr>
<tr>
<td>Q1 &amp; Q2 2017</td>
<td>13,504</td>
</tr>
<tr>
<td>Q3 &amp; Q4 2017</td>
<td>8,627</td>
</tr>
<tr>
<td>Q1 &amp; Q2 2018</td>
<td>7,839</td>
</tr>
<tr>
<td>Q3 &amp; Q4 2018</td>
<td>8,766</td>
</tr>
</tbody>
</table>
Desktop Support

Ticket Requests – 7/1/2018 – 12/31/2018

- Responded to and resolved **5198** Desktop Support requests. Breakdown of supported groups is below.

<table>
<thead>
<tr>
<th>Group</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>Student</td>
<td>1245</td>
</tr>
<tr>
<td>Faculty</td>
<td>1047</td>
</tr>
<tr>
<td>Generic</td>
<td>387</td>
</tr>
<tr>
<td>Retiree</td>
<td>41</td>
</tr>
<tr>
<td>Staff</td>
<td>2438</td>
</tr>
<tr>
<td>Emeritus</td>
<td>40</td>
</tr>
</tbody>
</table>

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 semester 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.

- Identified new Windows Linux client to assist researchers in connecting to Linux resources from Windows. This has been deployed to select research labs and will be deployed to all SCE general use labs for the Spring 2019 semester.
- EON Reality. Started planning for new EON Reality Virtual Reality computer lab to be installed in Flarsheim Hall ahead of the new building’s construction.
- Flarsheim Hall Lab in room 463 was refreshed with new computers. The older machines were repurposed throughout the SCE Research Labs.
- Purchased, configured and installed numerous specialized computers for SCE faculty
- Assisted Dr. Caruso with numerous guest accounts for research purposes
- Provided a Remote Lab with specialized software for SCE students and faculty
- Maintained an OntheHub download website for SCE students
- Worked with CFM to ensure the environment was maintained at an optimal level, including deep-cleaning lab floors:
- Provided shift data for fiscal officer’s budget planning.
- Assisted with addressing infrastructure issues.
- 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 student-printing needs by keeping supplies on hand and printers ready for use. Nearly 46,000 print jobs were printed in the SCE computer labs located in rooms 364, 460, 462, 463, and 464, totaling over 365,100 pages.
- 1,285 individuals used the general-use student computer labs during this time period:

<table>
<thead>
<tr>
<th>Departmental Labs</th>
<th>Individuals</th>
</tr>
</thead>
<tbody>
<tr>
<td>SCE 364</td>
<td>475</td>
</tr>
<tr>
<td>SCE 460</td>
<td>653</td>
</tr>
<tr>
<td>SCE 462</td>
<td>807</td>
</tr>
<tr>
<td>SCE 463</td>
<td>549</td>
</tr>
<tr>
<td>SCE 464</td>
<td>724</td>
</tr>
</tbody>
</table>

College of Arts and Sciences (CAS)
- A new Operations Committee Chair, Alex Holsinger was identified in late 2018.
- Decommissioned the Language Resource Center Lab. Repurposed usable computing equipment and surplused equipment that was past its useful life.
- Cherry Hall network switches were replaced and some VLAN’s we modified. All networked printers IP addresses had to be modified to work with the new configuration.
- Worked with each department to clean up old or outdated Exchange Distribution Lists.
- Geosciences held a Summer High School Conference and are looking to do it again next year.
- Coordinated several Windows 7 upgrades throughout the College
- Setup testing environment for Economic Qualifying Exams that take place every fall semester.
- Provided inventory reports to facilitate Workstations replacement efforts. Worked closely with them to resolve any questions
• Worked with each department to update their Distribution Lists
• Assisted with research technical support needs including Dr. Caruso with numerous account requests, computer purchases and setups.
• Assisted Art and Art History students with Adobe software issues. Coordinated with Kivuto as needed

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:

• Prepared for a lab upgrade on the first floor of MNL.
• Completed the process to convert over 2,000 stanzas to individual configuration files and put in place a process to update these more efficiently. As part of this process, all stanzas were verified to be accurate and out of date ones were removed.
• Provided an asset inventory report to assist with Workstation Replacement efforts

School of Education (SoE)

• The Charter School House that was located at 5306 Holmes has been disbanded and was moved into offices of the School of Education. Support Services assisted in moving four users and their computing equipment to the second floor of the SoE building.
• Met with new faculty member Eric Camburn to provide an overview of IT services

School of Biological Sciences (SBS)

Continued support of the major renovations to the Biological Sciences building. Phase 1 has been completed and the vast majority of equipment put in the newly renovated space. IS will continue to provide feedback and assistance in the upcoming phases of this critical project.

Printers. Migration of printers to shared campus server to reduce duplication of services, configured new method of installation to reduce time to support and provide better service.

• Research. Upgraded several research labs with new operating systems and new hardware where funding was available.

• Building Renovations. Completed Phase 1 and performed updates and equipment moves to support the completion of this phase.
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 new Professional MBA program, which consists of multiple methods of reaching, both in person and online.
- Supported the Entrepreneur of the Year conference. This is a very large event, hosted at Bloch Executive Hall, with over 250 participants.
- Replaced all Xerox MFD with Konica Monita MFDs
- Provided technical support for numerous events

- Worked with CFM to ensure the environment was maintained at an optimal level, including deep cleaning the floor in the BHH 110 general-use computer lab over Winter Break.

- Addressed multiple incidents with flooding and related damage resolution in the lab, working with CFM and outside contractors.
- Supported student-printing needs in the BHH 005 computer classroom by keeping supplies on hand and printers ready for use. Over 1,100 print jobs were printed in BHH 005, totaling over 7,400 pages.
- 322 individuals used the BHH 005 computer classroom during this time period.
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:

- **ILG Exam 360.** Supported the development of a new tool to facilitate online exams. This has replaced ExamSoft and will align testing with the Kansas and Missouri Bar Exams.
- **MediaSite.** Working with vendor to migrate to cloud hosting for this service.
- **Box Transition.** Migrated from Box Sync and redirected profiles to a more standard and supported method using Box Drive.
- **Distribution Lists.** Worked with various groups in IS and Law to cleanup outdated distribution lists.

**School of Nursing and Health Sciences (SoNHS) 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.

- **Distribution Lists.** Worked with various groups in IS and Law to cleanup outdated distribution lists.
- **ExamSoft.** Supported ExamSoft for the School of Pharmacy
- **The Collaborative.** Provided IT support and procurement services for The Collaborative (formally known as ATTC).

**KCUR**

IS continues to support KCUR and their growing staff. Over the last 6 months, we have supported multiple membership drives ensuring these critical times are running smoothly. In addition, IS completed the Tornado Alley RDS project, which will enable KCUR to send emergency messages via RDS to their listeners.

**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.

Upgraded AirWatch to version 9.7 to take advantage of the new version of iOS.
SCCM. Continue to use Microsoft’s SCCM as our primary asset management tool and our preferred method of software installation. Specifically, over the last 6 months we have used SCCM to install 22,634 pieces of software across campus. 799 of these were initiated via our Software Deployment webpage by IS technicians and IT liaisons. We also imaged 1,640 lab computers using the Operating System Deployment functionality of SCCM.

We have leveraged SCCM to allow Faculty and Staff to upgrade their Windows 10 computers via SCCM with just a couple clicks. To date we have had over 60 Faculty/Staff take advantage of this new upgrade option.

RemoteLabs. Performed a major refresh of all RemoteLab servers with new operating systems and applications.

License Servers. Updated 21 individual license servers with updated daemons and/or license files.

Website. Performed major cleanup of the IS Support website. This included the update and/or deletion of over 500 pages.

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. Over 65 Windows packages and over 150 Mac packages were created during this period.

Support Services Projects

Active Directory

Continued work on the consolidation of campus domains into a single, shared, UM AD domain. Over the last 6 months much work was done to determine the framework for the new domain, determing an appropriate shared governance policy, and identifying the technical requirements for the new domain. In addition, user migration testing plans have been forumated and testing has started. User migration is expected to occur in 2019.

Testing Center

The Testing Center has recently worked with Support Services on the implementation of Pearson Vue to become a certified Vue test center. Over several weeks and working with various technical teams on campus, we now have a fully functional Pearson Vue test center on-campus that is actively administering tests.
Pearson Vue now allows UMKC to administer certifications exams from organizations like CompTIA, Cisco, Microsoft, and VMware as well as many other examinations for multiple industries. Not only will this appeal to our student base but faculty and staff of the university as well as the community.

Campus Facilities

Worked with Honeywell on their EBI building Integration System for Climate Control to resolve security issues on systems throughout the campus.

Research Computing Project

IS reached out to researchers across campus to determine how we could better support their IT needs and what gaps currently existing. As a result of these conversations, IS procured eight high-end color laser printers to help meet researchers printing needs. These printers will be installed in key locations in early 2019.

Working with other IS departments to standards and improve Linux support. While the majority of Linux users are involved in research computing to some degree this is not 100% across the board. These improvements will help with other groups as well.

Four Winds Digital Signage

Upgraded both the Four Winds server and all clients to the latest version. This not only gives additional functionality for our clients but also provides better compatibility with Windows 10.

Updated FourWinds systems periodically with new content provided from MComm

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 PCard orders on a monthly basis providing written IT and fiscal approval statements from authorized personnel, invoice/receipt documentation, MOCode and PeopleSoft account code assignments for all transactions
- Strengthened business relationships with numerous vendors
- Established new relationship with MU Bookstore to streamline and improve purchasing and ancillary processing for the acquisition of Apple products
- 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
- Represented UMKC on the IT Standards Committee
- Serve as Administrator of the Dell Tech Direct system for all UM Campuses
IS Project Updates

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 (January - July 2018).

Completed Projects

IS completed (11) IT/AV projects. The following projects were the most significant and time-consuming. *See Appendix “A” for individual project detail.*

P299 CEI HCF Grant

The Center for Economic Information (CEI) has been awarded the Health Care Foundation of Greater Kansas City’s Special Initiative Grant to support the development of the Kansas City Health Community Organized Resource Exchange (KC Health CORE). The scope of this grant involves developing a large-scale database that will aggregate a variety of social determinants and health data for the Kansas City community. The KC Health CORE initiative is designed to provide a HIPAA compliant, secure, centralized information architecture for micro-level health data resources for the purpose of coordinating health disparities research, to identify the key factors in targeted populations, and to leverage existing community resources toward sustainable solutions. The KC Health CORE system will be designed to facilitate regional health data exchange and interdisciplinary research projects by providing controlled access to the initial KC Health CORE geodatabase to members of participating research institutions, collectively referred to as the KC Health CORE Consortium (HCC). During this review period, we completed the Year 1 deliverables by installing FortiClient and FileZilla for all CEI computers utilizing the database for completion of the project.

P274 – Scofield Hall Infrastructure Replacement

This project is to bring the building infrastructure in Scofield Hall to current standards by rewiring the voice and data jacks on all floors in the building. This process involves ongoing infrastructure improvement efforts, but we are managing each building as individual projects to better track costs/materials/timelines. This building has five floors and was rewired one floor at a time. One new IT room in Scofield Hall was also built out as part of this project.

P322 – Swank Server Setup

This project involves removing cable TV from all of the residence halls/student apartments and installing a new video on demand service from SwankTV to be called “rooflix.umkc.edu”. SwankTV will provide a virtual video caching server with a web portal for student access. During this review period, we completed the security scan, finalized the contract with the vendor, installed and tested the servers, disconnected the previous vendor services, spun up new video services and tested services. This work was expedited and completed within a 6-week timeframe to meet the customer’s request of completing prior to students moving in for the fall semester.
P323 – Building Switch Refresh FY1

This project involves replacing old network switches in IT rooms around campus. Nine buildings were upgraded during FY19. This keeps the network up to current standards, provides greater bandwidth and more reliable end-user network connections.

Current Projects – Implementation Phase

IS progressed in implementing (18) 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 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 worked on the design and worked with the design team to create construction documents. During the next review period, IS will create an estimate for the project.

P220 – Data Center Switch Refresh (DSR)

This project will upgrade the existing Administrative Center and Newcomb Hall data center networks. The new networks will 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 will greatly increase the number of available 10 GB copper and fiber interfaces and support 40 GB & 100 GB interfaces where needed. The new “spine” switches will be geographically separated across the two data centers. This equipment will also allow us to implement a software-defined network (SDN) features as needed in the future. The switches have been purchased and were installed during this review period and we are currently cutting over to this new equipment.

P292 – Network Core Refresh FY18

This project will replace the existing two primary campus core routers that form the backbone of the UMKC network. Currently, each of these routers supports 55 building uplinks. The new core routers will be installed in geographically separated data centers on campus and will support high-density 10 GB and 40 GB uplinks to the campus buildings. The new uplinks will greatly increase the available bandwidth on UMKCnet. During this review period, we received and installed the new core boxes in Newcomb Hall and the Administrative Center. We are currently working on the transition to these new systems.
P298 – Cherwell Planning

This program is to oversee the series of projects necessary to investigate options for replacing our service management solution, Remedy; to implement and migrate from Remedy to the selected cloud-based solution, Cherwell Service Management; and to decommission Remedy. During this review period, we completed the UMKC Services Catalog for Infrastructure and Networking, attended weekly calls with UM System and the four-campus partners, configured the UMKC portal, hosted training for all UMKC Cherwell users, worked with our Marketing team for user communication, and completed implementation of a live portal in October for completion of Phase I deliverables. We continued to test and troubleshoot issues with our campus partners through the end of the year.

P305 – AD Consolidation

This project will include technical design, establish policies and procedures, and provide opportunities for campuses to review and provide feedback. In addition, this project will define the path to move forward with consolidation plans, including outlining the deliverables for the remaining program projects. Finally, this project will include technical setup necessary to prepare for the remaining projects. During this review period, we worked with UM System and the four-campus partners to provide a recommendation for domain flattening to the VP of Information Technology, received approval, collaborated on SharePoint and Google Docs sites, and began moving accounts for testing.

Current Projects – Development Phase

IS has made good progress working with units to plan (12) IT/AV projects during this review period. The following projects were the most significant and time-consuming. See Appendix “A” for individual project detail.

P248 – Lenel to CBORD Transition

This project is to replace the existing Lenel Card Assess system in 11 buildings with CBord Card Access. Buildings include 4747 Troost, Cherry Street Garage – Mail Room, Cherry Street Garage – Police, School of Education, Flarsheim Hall, General Services Building, Hospital Hill Annex, Administrative Center, Building #71, Cherry Street Hall and Health Science Building. During this review period, we worked on setting flat component pricing for each component of card access, which will ultimately drive unit costs once we shift to that model. CFM partnered with the CBORD office to develop a detailed transition estimate to move all buildings to CBORD and individual CFM estimates for each building. We are currently working to finalize these numbers for a meeting with campus leadership on possible funding in early 2017. During this review period, this project moved from development to implementation, worked with Networking and CFM to identify all owners of Lenel cameras and door access, and began establishing a timeline for decommissioning of Lenel products.
P293 – ILE Classroom Upgrades FY19 IS Funded

As part of our continual process of keeping the highest quality student experience, IS plans to upgrade six 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 the Registrar’s office to identify the rooms to be upgraded and finalized a design to provide the maximum positive impact to Student, Faculty and Staff experience with the limited funding we had within the current budget.

P336 – AchieveIT

UM System has mandated that all campus partners author strategic plans for 2018-2028. These strategic plans will be tracked in the AchieveIT software. The plan consists of five pillars to be managed by pillar committees. In addition to committee members, each pillar will include a project manager (PM). The PM will be the point of contact between UMKC and System regarding AchieveIT. The PM will also update the metrics as indicated and ensure that all other data input in a timely manner. It is recommended that each chair enlist his/her Executive Assistant or similar role, to act as the Pillar Coordinator. This person will provide administrative support to the committee; note taking, scheduling, data entry, etc. This person will work closely with the PM and will be responsible for entering pillar goals, strategies and tactics updates. During this review period, we attended vendor training and plan overview at UM System’s Office of the President in Columbia. We also coordinated with the Chancellor’s and Provost’s Chiefs-of-Staff and the President’s Office to formalize metrics and frequency of updates.
Technology Management Services

TMS Support Client Experience

During this review period, TMS activated to resolve 508 reported client issues. Each resolved issue resulted in the client receiving a survey about their experience to complete. Below is both the monthly aggregate data and the Net Promoter Score (NPS) (calculated from the “average” scores).

- **Average NPS was 90.17**
  - 57 Promoter survey responses
  - 2 Passive survey responses
  - 2 Detractor survey responses
  - ~12% of all Clients responded
ILE Classrooms, Video 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.
- 740 new streaming media entries (videos, images and audio clips), were added to Kaltura by faculty and/or students.
- 743 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 10 hours of recorded HSB Simulation Center events. The chart below tracks support since the Assessment Lab was installed.

**Building Network Infrastructure**

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

- Completed the Category 6 planned infrastructure upgrades in Scofield Hall
• Began planning for planned infrastructure upgrades to the fifth floor of the Biology building and the Swinney Recreation Center.
• Infrastructure Services staff attended over 100 hours of training.
• Completed 236 adds, moves and changes in voice jacks, data jacks, and phones.
• Resolved over 280 infrastructure related trouble tickets.
• Marked University buried cable plant locations as required by Missouri Law for One Call services 492 times.

**UMKC Operators**

The UMKC Operator number (ext. 1000) handled 31,906 phone calls during this review period. Of those ~31.9K calls, users were able to self-route approximately 79% of the calls using our automated call routing tree. 21% of the calls required human interaction from campus operators.
Network Architecture

No activity reported.
Information Access

Database Server Design, Implementation & Administration

- Administration and support of all central campus Oracle servers
  - Streamlined Oracle Enterprise Manager Cloud Control monitoring.
- Administration and support of all central campus MS SQL servers
  - Upgraded central campus servers from version 2014 to version 2016.
- Administration and support all central campus MySQL servers
- Administration and support of all central campus FileMaker servers
- Administration and support of the central campus secured external facing Oracle server for third party vendor data collaboration
  - Continual support for third party vendors like Civitas to enable required access to campus resources
- UMKC Center for Economic Insight (CEI) Health Care Foundation Grant
  - Collaborated with CEI to implement the first phase (Year 1) goals establishing the infrastructure for the overall system.
  - 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.
- Support and maintenance of Registrar’s Office room/event scheduling software, Astra Schedule
  - Assisted in the upgrade to the latest version of Astra Schedule.
- Administration and support of all CHI/HealthFacts and RedCap database servers
- Administration and support of all School of Dentistry Axium and additional database servers.
- Administration and support of all UMKC Data Warehouse Oracle servers
- 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
- Migrated over 2TB of historical degree audit data accumulated over the last few years from servers at UMKC to the Data Warehouse in Columbia

Software Design and Development

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

1. Advisor Sync
2. ALEKS
3. Blackboard Request System
4. Blackboard Snapshot/Data Feed
5. Box Account Provisioning & Deprovisioning
6. Canvas Data Feed
7. Cashiers Fee Estimator
8. Cashiers Student Kiosk
9. Cisco WebEx Provisioning & Deprovisioning
10. Civitas Illume
11. Commencement
12. Consulting Activity Reporting
13. Distribution List Management
14. Diversity Free Event Registration
15. Retiree Exchange Mailbox Form
16. Exit Exams
17. Faculty Staff Lookup
18. Financial Aid - Pell Grant Enforcement Refresh
19. RooEval
20. uAchieve
21. Instructor Issues Report
22. Exam Scheduler
23. IS Change Management & Outages
24. Kasey Kudos
25. Leepfrog Catalog Navigator Data Feed
26. Orientation Registration website
27. Provost Policy Library
28. Property Registration Website
29. Roowriter
30. SEARCH & SUROP
31. SGS iPHD Tracker
32. Starfish Connect
33. Studio Abroad/Terra Dotta
34. UM Research Resources
35. UMKC Attendance
36. UMKC AZ Index
37. UMKC Homepage Admin
38. UMKC Polls
39. UMKC QR
40. MNL QR code scanner
41. SBS Points Calculator
42. UMKC Libraries websites

Software Administration

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

**Scanning Services**

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

Scanning Services provided during this period include:

• Total exams scanned: 490
• Total evaluations scanned 71 for two sections, in one scan request.

**Exam Scans by School**

• College of Arts and Sciences 200
• Henry W. Bloch School of Management 143
• Conservatory of Music and Dance 4
• School of Education 4
• School of Law 20
• School of Pharmacy 7
• School of Biological Sciences 99
• School of Nursing 2
• School of Computing and Engineering 1
• Anchor Courses 16
• **Total Exams Scanned: 490**

**Evaluations Scan Requests by School**

• School of Biological Sciences: 1
• **Total Evaluation Scan Requests 1**
Security

- Worked on yearly PCI compliance for campus merchants
- Worked on Office 365 project
- Worked on Active Directory consolidation project
- Worked on software and hosting security reviews
- Worked on compromised account cleanup
- Worked on filters and blocks to reduce phishing to student accounts
- Assisted with ADAstra migration project
- Numerous security changes for AD consolidation project
- Started a new Smart Card project for administrator accounts involved in account consolidation
MOUs

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.

- Information Services continued to work closely with Bloch and UMKC Online on the rollout of the PMBA program.
  - IS provided ad-hoc training sessions for faculty and staff to ensure comfort with the tools associated with synchronous and asynchronous online education
  - IS maintained two common “ZOOM” rooms with equipment and software to facilitate synchronous online sessions and asynchronous recordings

- Information Services provided technical support for special events, conferences, career fairs, etc. This has been and continues to be a primary function of full time dedicated Bloch IS and student staff.
  - Bloch Executive Hall averages 5 to 10 events each week (over 480 events were held in 2018).
    - 90% of events utilize AV/Room technology.
    - 15% of events request direct support from Information Services.
    - These events range in size from 10-200 attendees.

- Information Services continues 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.
      - >$2000 in cost savings from Jul-Jan.

- Information Services manages the contracted relationship with SKC (Audiovisual integrator) and Bloch.
  - SKC currently functions as an intermediary between UMKC and equipment vendors for replacement and repair.
  - Notable pieces of equipment replaced/pulled for repairs from Jan-Jun included:
    - Eight Crestron Scaler Power Supplies.
    - Two Christie Projector2.

- Information Services worked closely with Bloch and marketing for all of Bloch’s Four Winds Interactive (FWI) displays.
  - IS dedicated >40 hours of labor to these efforts from July to January.
  - IS handled content editing and deployment to Bloch’s FWI players.
  - IS handled FWI hardware/software design, deployment, and maintenance.

- Information Services directly supervised Bloch’s PT technical staff, worked closely with the business office to provide labor forecasting and was directly responsible for labor deployment/expenditures.
  - Daily preventive maintenance checks were completed in all Bloch classroom spaces prior to the start of morning classes (daily) to minimize disruptions.
o Information Services and Bloch student technicians supported both Heritage Hall and Executive Hall and were available to assist Students, Faculty and Staff during all class hours.
o Technicians were scheduled in both buildings based on the class schedule.
  - This ensured we met Client support expectations as well as our financial obligations in relation to labor spend.
o Technicians were scheduled on weekends when classes/events dictated.

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

- IS continues to work with Nursing to support their IT needs, including regular meetings with the IT Ops Committee. As new projects come up, this allows us to provide guidance and technical resources to ensure their goals are met. Below are some of the projects IS was involved in.
- IS has provided daily room checks and as-needed technical assistance via ITSM, phone and direct reports in ILE spaces.
- IS provided scheduled operational assistance for the fifth Floor "Simulation Lab", including the operation of AV system and Laerdal "SimView" software.
- IS provided on-demand technical support via ITSM, phone and direct report for “custom” non-ILE learning spaces, including labs featuring simulation mannequins, mock medical exam rooms, and video recording technologies.
- IS worked with KBPort, Laerdal, and HP to quote extended warranties on video recording technologies.
- IS met with SoNHS administration to discuss migration to new “RIM” budgetary model.
- IS assisted faculty with new distance teaching tool (Zoom).

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 has provided daily room checks and as-needed technical assistance via ITSM, phone and direct reports in ILE spaces
- 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
- IS provided daily coordination and support for distance courses between UMKC, MU, and MSU
- IS started redesign project to enhance SoP video classrooms, and migrate to a soft codec platform to improve reliability and reduce ongoing maintenance costs
- IS assisted SoP faculty with new distance teaching tool (Zoom), and helped explore connections between Zoom and standards-based room video conferencing systems
- IS coordinated with IA to resolve Panopto recording issues
Academic Enhancement

SCHOOL OF MEDICINE

- White Coat Ceremony

SCHOOL OF PHARMACY

- White Coat Ceremony
- Recorded simulated interactions between a pharmacist and a patient

SCHOOL OF EDUCATION

- UMKC Summer Bridge Promotional Video pre-production meeting
- SOE edit sessions
- UMKC Summer Bridge Promo Video
- Recorded 2-3 speakers
- Recorded Human in the Digital Age
- First Wednesdays 6 Sessions
- School of Education Shoot Interview and B-roll
- IUE - Welborn Elementary in KCK – Shoot
- IUE - Borderstar Montessori – Shoot
- IUE - Whittier Elementary – Shoot
- IUE - Kansas City International Academy – Shoot
- Single camera recorded event with live streaming – Union Station
- Recorded 2-4 speakers

FaCET

- Recorded multiple speakers for the fall conference
- Recorded 2-4 speakers

PROVOST OFFICE

- Academic Council, Chairs, and Directors meeting - 6 Sessions
- Recorded 3 training sessions
- Mid – Year commencement exercises

CONSERVATORY

- Streamed/Recorded Conservatory with Steven Davis
- Recorded Opera for Archive
DIVERSITY AND INCLUSION

- Social Justice Lecture
- Educate, Organize, Advocate Conference

COLLEGE OF ARTS AND SCIENCES

- Recorded the CAS Fall Reception and Dean Vaught giving his ‘State of the College Address’

BLOCH SCHOOL

- Completed 9 Class Recordings
- Recorded First Wednesdays – Multiple Sessions
- 8 Class Recordings for an online course
- Recorded various students with their projects/edit to use as requested – Plex Pod

CHANCELLORS OFFICE

- Recorded Video for Provost & Chancellor – 2 Shoots
- Chancellor Agrawal’s State of the University Address
- Recorded Dean of Bloch and Chancellor
- A Special Invitation from the Chancellor

MCOMM

- Convocation - Chant Videos with MCOMM Staff
- Convocation Ceremony (both the event and spirit tunnel)
- ENG record event(s) for MCOMM - 3 separate locations

SCHOOL OF COMPUTING AND ENGINEERING

- Scouted and met vendor for IEEE
- Recorded the School of Computing and Engineering’s Virtual Groundbreaking
- IEEE International Smart Cities Conference (ISC2)
- Recorded - SCE Alumni board on a speaker/panel
- Drone training

SUPPLEMENTAL INSTRUCTION

- SI Session Recap
- SI Production Session

UMKC ONLINE

- Recorded multiple speakers
LINDA HALL LIBRARY

- Recorded Cockefair course – 3 Sessions

SCHOOL OF NURSING

- Produced 5 separate FAQ videos for SON & HS
Foundation Services

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

ITSM (Remedy)

- As part of a UM System shared initiative, ISFS hosted the ITSM infrastructure and exceeded the goal of 99.9% uptime.

Server Virtualization

- Upgraded vSphere primary cluster hosts to ESXi 6.5 P03.
- Provisioned approximately 18 new virtual servers.

Storage/SAN/Backup

- Upgraded firmware on EqualLogic file services SANs.
- Upgraded Nimble SAN controllers at both Production and DR site to allow deduplication and increase IOPS.
- Upgraded CommVault media agent hardware allowing larger index cache to support quicker recoveries.

Miscellaneous

- Remedied and closed 600+ Remedy tickets. Ticket completion times continue to be held low, and customer surveys show very high ratings.
- Multiple server OS (Windows and Linux) and application upgrades including AIMS, ARMS, Cadence, Synopsys, Titanium, TutorTrac, AdAstra, TMA, Redcap, Bitbucket, RooBox, RocketChat, Confluence, JIRA, and ColdFusion.
- Shibbolidized dozens of websites and multiple new services allowing single sign-on.
- Major group policy object (GPO) cleanup to remove hundreds of unused/unneeded objects.
- 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 (75% complete).
- Joey2.0 HPC teaching cluster replaced Joey1.0 increasing core count and modernizing both the OS and applications.
- Worked on many aspects of the AD Consolidation Project including testing application compatibility with users spanning domains.
- Developed Linux desktop imaging service for both CentOS and Ubuntu
Appendix A

Individual Project Updates – Completed Projects

P216 – Fujitsu Optical

This project involves replacing UMKC’s old optical gear with new Fujitsu gear. Extending the existing MOREnet optical network between Newcomb Hall and the 1102 Grand data center downtown includes a new optical node on UMKC’s Hospital Hill campus. This new “Ring” will utilize Fujitsu 9500 DWDM equipment, which can support forty-four 100 GB simultaneous “waves”. UMKC will use some of these new waves to increase the Hospital Hill building network uplinks from 1 GB to 10 GB. The new equipment provides the possibility of creating dedicated research waves between the UMKC campuses or anywhere on the MOREnet network.

P299 CEI HCF Grant

The Center for Economic Information (CEI) has been awarded the Health Care Foundation of Greater Kansas City’s Special Initiative Grant to support the development of the Kansas City Health Community Organized Resource Exchange (KC Health CORE). The scope of this grant involves developing a large-scale database that will aggregate a variety of social determinants and health data for the Kansas City community. The KC Health CORE initiative is designed to provide a HIPAA compliant, secure, centralized information architecture for micro-level health data resources for the purpose of coordinating health disparities research, to identify the key factors in targeted populations, and to leverage existing community resources toward sustainable solutions. The KC Health CORE system will be designed to facilitate regional health data exchange and interdisciplinary research projects by providing controlled access to the initial KC Health CORE geodatabase to members of participating research institutions, collectively referred to as the KC Health CORE Consortium (HCC). During this review period, we completed the Year 1 deliverables by installing FortiClient and FileZilla for all CEI computers utilizing the database for completion of the project.

P261 – Smart City Kiosks

This is a Kansas City project to install digital information Kiosks around the city, including eight locations on the UMKC campus. IS’s scope included providing fiber and network connectivity to the UMKC Kiosk locations.

P274 – Scofield Hall Infrastructure Replacement

This project is to bring the building infrastructure in Scofield Hall to current standards by rewiring the voice and data jacks on all floors in the building. This process involves ongoing infrastructure improvement efforts, but we are managing each building as individual projects to better track costs/materials/timelines. This building has five floors and was rewired one floor at a time. One new IT room in Scofield Hall was also built out as part of this project.
P279 – SOE Lab Move Changes

This IS Funded project was to install typical ILE classroom equipment into SOE 129B and 034 and also make changes to Lab space. During this review period, we finished the install with the back ordered equipment and completed the project.

P280 – SOD 209 AV Upgrade

This project is part of the School of Dentistry expansion program at Missouri Southern State University in Joplin. For this phase two project, the IT/AV scope includes upgrading the Dental School selected SOD room #209 with similar distance Ed technology as the room upgraded in phase one. During this review period, all punch list items were corrected and the project was completed.

P301 – Chancellor’s Office AV Upgrade

This is a project to add a fully integrated audio visual video conferencing system to the conference room in the Chancellor’s Office. During this review period, we finished the install and trained the client on the use of the system. We also completed the closeout process and marked the project complete.

P310 – CEI Virtual Conference Room

The project is adding a Display Cart that has Unified Communication capability that will also work as a collaboration space. During this review period, we assembled the cart and delivered to the client. After training the client, we completed the closeout process and marked the project complete.

P315 – SU Robot Café Signage

The project is adding signage to replace the menu boards at the Robot Café in MNL. During this review period, IS was able to install the equipment and train the client. The closeout process was completed and the project was marked completed.

P322 – Swank Server Setup

This project involves removing cable TV from all of the residence halls/student apartments and installing a new video on demand service from SwankTV to be called “rooflix.umkc.edu”. SwankTV will provide a virtual video caching server with a web portal for student access. During this review period, we completed the security scan, finalized the contract with the vendor, installed and tested the servers, disconnected the previous vendor services, spun up new video services and tested services. This work was expedited and completed within a 6-week timeframe to meet the customer’s request of completing prior to students moving in for the fall semester.

P323 – Building Switch Refresh FY19

This project involves replacing old network switches in IT rooms around campus. Nine buildings were upgraded during FY19. This keeps the network up to current standards, provides greater bandwidth and more reliable end-user network connections.
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 worked on the design and worked with the design team to create construction documents. During the next review period, IS will create an estimate for the project.

P205 – SU401 Wall Plate Upgrades

At the request of Student Affairs, IS is proposing technology upgrades to Student Union 401 that will overhaul the video and control system and adjustments to the audio section. The upgrades will include new projectors, a video switcher and wall plates. During this review period, IS turned the space over to the client for regular use by the start of Fall Semester and to test the functionality of the new setup. In the next review period, IS will meet with the client to make any functionality changes needed in the room.

P220 – Data Center Switch Refresh (DSR)

This project will upgrade the existing Administrative Center and Newcomb Hall data center networks. The new networks will 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 will greatly increase the number of available 10 GB copper and fiber interfaces and support 40 GB & 100 GB interfaces where needed. The new “spine” switches will be geographically separated across the two data centers. This equipment will also allow us to implement software-defined network (SDN) features as needed in the future. The switches have been purchased and were installed during this review period and we are currently cutting over to this new equipment.

P273 – Office 365

UM System is to integrate current AD into O365 functions. Users will then have access to all files and servers will live in the cloud. The base requirement is that we can authenticate against current user names, meaning AD is the authoritative user name and password. During this review period, we attended weekly UM System calls with the four-campus partners, finalized the UMKC Governance Committee, investigated and selected Project Online for our next 4 campus project management software, completed the project charter, approved applications list, and operations agreement.

P292 – Network Core Refresh FY18

This project will replace the existing two primary campus core routers that form the backbone of the UMKC network. Currently, each of these routers supports 55 building uplinks. The new core routers will
be installed in geographically separated data centers on campus and will support high-density 10 GB and 40 GB uplinks to the campus buildings. The new uplinks will greatly increase the available bandwidth on UMKCnet. During this review period, we received and installed the new core boxes in Newcomb Hall and the Administrative Center. We are currently working on the transition to these new systems.

P298 – Cherwell Planning

This program is to oversee the series of projects necessary to investigate options for replacing our service management solution, Remedy; to implement and migrate from Remedy to the selected cloud-based solution, Cherwell Service Management; and to decommission Remedy. During this review period, we completed the UMKC Services Catalog for Infrastructure and Networking, attended weekly calls with UM System and the four-campus partners, configured the UMKC portal, hosted training for all UMKC Cherwell users, worked with our Marketing team for user communication, and completed implementation of a live portal in October for completion of Phase I deliverables. We continued to test and troubleshoot issues with our campus partners through the end of the year.

P304 – Academic Works

Academic Works 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 kicked off the project with Financial Aid and the vendor, attended weekly project meetings, worked with Data Warehousing for transfer of data from PeopleSoft, coordinated with the Financial Aid team to ensure scholarship entry was completed by go-live date, and launched the Awards Management portion of the Academic Works Scholarship Management platform for Bloch School of Management, School of Arts & Sciences, School of Computer & Engineering and Financial Aid.

P305 – AD Consolidation

This project will include technical design, establish policies and procedures, and provide opportunities for campuses to review and provide feedback. In addition, this project will define the path to move forward with consolidation plans, including outlining the deliverables for the remaining program projects. Finally, this project will include technical setup necessary to prepare for the remaining projects. During this review period, we worked with UM System and the four-campus partners to provide a recommendation for domain flattening to the VP of Information Technology, received approval, collaborated on SharePoint and Google Docs sites, and began moving accounts for testing.

P316 – Clear Scholar

Clear Scholar uses an approach called personas when coupled with the Civitas analytics insight make it a differentiator product. Other mobile solutions can provide content in a similar manner but usually to strictly defined groups. The algorithm and the overlapping approach make it unique. During this review period, we facilitated training for all UMKC admins and super admins, arranged campus communications (digital and in-person), completed digital uploads to display student pictures, hosted weekly meetings with vendor and academic teams, created proposal for digital ID implementation and received executive
approval, began process of testing, procurement of hardware and coordination with multiple vendors for implementation of our digital ID proposal.

**P319 – SRC Sound System Upgrade**

The project is upgrading the sound system on the SRC courts. During this review period, the project was installed and the client was trained on its use. During the next review period, we plan to close out the project and mark it complete.

**P324 – UPS Battery Replacement FY19**

This project will replace bad batteries and UPS’s as needed in IT rooms around campus as well as some of the larger building UPS’s if needed. We are currently working on bids and plans for three different building UPS locations.

**P325 – Pierson Auditorium Projector Upgrade**

This is a project to upgrade the projectors in Pierson Auditorium as well as replace the user interface. During this review period, the project was approved and the equipment was ordered. The new projectors were installed in the first phase and we plan to complete the user interface upgrade in the next review period.

**P326 – ED115 Modification for A and S**

The project is adding equipment to ED115 to make it more usable for A&S. During this review period, the project was installed and the client was trained on its use. The client was invoiced and the project was completed.

**P332 – Ad Astra Cloud Hosting**

The project is to move Ad Astra from an onsite server to a cloud hosted service. Ad Astra has built the cloud server and we are currently testing connectivity and set up for a planned March 2019 cutover.

**P333 – Child and Family Law Clinic Conference Room**

The project is adding a conference/collaboration space to Law Child and Family Services Clinic Office (Rm: 1-522). During this review period, the project was approved and equipment was ordered. We plan to complete the project during the next review period.

**P335 – AC Visix Room Signage**

IS is setting up the AC Conference Center as a test case to see if this product will work well to roll out campus-wide. We will install 8-10 Visix room signage signs that will pull data from Ad Astra and Outlook scheduling. These screen/displays for room signage are much less expensive, cost a few hundred dollars, compared to using an iPad or some other vendors' solution that can run over a thousand dollars per screen. We are currently testing the hardware and software for security and plan a March 2019 installation.
P337 – OCR Brainware

UM System has purchased a new product, Brainware OCR, for all four campuses. It will initially be used for transcripts. This product will be supported centrally by the Perceptive Content (ImageNow) team. The tentative timeline for implementation is January 2019 – June 2019. The project charter has been completed and we have information-gathering meetings with the consultant team setup for February 2019.

P338 – KC Sourcelink 4747 Troost Rm114

This is a project to add a Unified Communications/Presenter Space to 4747 Troost Rm: 114. During this review period, the project was approved and equipment was ordered. We plan to complete the project during the next review period.

Individual Project Updates – Development Phase

P185 – Thompson Courtroom Upgrade

This is a project to upgrade all existing presentation, teaching, and recording technology in the courtroom to the current digital HD Video standards. Enhancements to the user interface, system usability, and video recording quality are also included, as well as a possible redesign of the lighting systems throughout the space. With multiple design meetings during this review period, we will be providing a design to the client in the 1st quarter of 2019 with hope to proceed with phase one work over spring break.

P248 – Lenel to CBORD Transition

This project is to replace the existing Lenel Card Assess system in 11 buildings with CBord Card Access. Buildings include 4747 Troost, Cherry Street Garage – Mail Room, Cherry Street Garage – Police, School of Education, Flarsheim Hall, General Services Building, Hospital Hill Annex, Administrative Center, Building #71, Cherry Street Hall and Health Science Building. During this review period, we worked on setting flat component pricing for each component of card access, which will ultimately drive unit costs once we shift to that model. CFM partnered with the CBORD office to develop a detailed transition estimate to move all buildings to CBORD and individual CFM estimates for each building. We are currently working to finalize these numbers for a meeting with campus leadership on possible funding in early 2017. During this review period, this project moved from development to implementation, worked with Networking and CFM to identify all owners of Lenel cameras and door access, and began establishing a timeline for decommissioning of Lenel products.

P293 – ILE Classroom Upgrades FY19 IS Funded

As part of our continual process of keeping the highest quality student experience, IS plans to upgrade six 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 collaborated with the Registrar’s office to identify the rooms to be upgraded and finalized a design to provide the maximum
positive impact to Student, Faculty and Staff experience with the limited funding we had within the current budget.

**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. We had initial scope meetings and will present a high-level estimate to the client in the 1st quarter of next year.

**P328 – Stoup Courtroom Upgrade**

The project is upgrading the technology equipment in the Stoup Courtroom. During this review period, we had the initial scope meeting and plan to set up a design meeting with an outside consultant.

**P336 – AchieveIT**

UM System has mandated that all campus partners author strategic plans for 2018-2028. These strategic plans will be tracked in the AchieveIT software. The plan consists of five pillars to be managed by pillar committees. In addition to committee members, each pillar will include a project manager (PM). The PM will be the point of contact between UMKC and System regarding AchieveIT. The PM will also update the metrics as indicated and ensure that all other data input in a timely manner. It is recommended that each chair enlist his/her Executive Assistant or similar role, to act as the Pillar Coordinator. This person will provide administrative support to the committee; note taking, scheduling, data entry, etc. This person will work closely with the PM and will be responsible for entering pillar goals, strategies and tactics updates. During this review period, we attended vendor training and plan overview at UM System’s Office of the President in Columbia. We also coordinated with the Chancellor’s and Provost’s Chiefs-of-Staff and the President’s Office to formalize metrics and frequency of updates.
Building Cable Plant Infrastructure Upgrades

Appendix B