Technology Services
Annual Report for 2015

David Lane, Interim Associate Vice President/CIO
Monroe Community College— 1000 East Henrietta Road
T: 585-292-3040; E: dlane@monroecc.edu
Executive Summary

Technology is the heart beat of Monroe Community College. Since technology is still the pulse of the college, 2015 brought about new systems to ensure that the heart beat continues without interruption. 2015 was focused on Cyber Security and efficiencies.

Technology Services took the lead in deploying new security procedures to monitor our network and systems, tracking the hackers coming in and out. The new Security Incident and Event Monitor will help to find those that are trying to cyber break into MCC. Technology Services is also trying to make users better aware of cyber security by providing self-paced online training for all users. This training can be applied to everyday computer usage at home and at MCC.

Leveraging the Ellucian Business Analysis, Technology Services is also focusing on streamlining services on campus. Beginning with Banner and working with other departments to find efficiencies and old business processes, Technology Services is working to revitalize areas of the college such as Financial Aid and Admissions. Working together, we are reviewing the functionality of existing software solutions and evaluating new solutions to assist in the business process, moving students quickly and easily through the many areas of MCC. Making the student experience as positive as possible is the ultimate goal of Technology Services. If we are successful at our job, a student or staff member should not have to think twice that there is anything going on behind the curtain to help make them successful at MCC.

Technology Services is also looking forward to the future and bringing new and exciting solutions to align with the strategic goals of MCC. While examining the various business areas of the college, Technology Services will be positioned to suggest and implement new processes and software to bring better service to the students and staff. I look forward to a bright future and assisting with each unit of the college.

David J. Lane

Interim Associate Vice President
Chief Information Officer
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Technology Services

New MCC Alert System

Technology Services implemented a new service to facilitate emergency communications on campus for staff and students. The new solution provided by Rave Mobile Safety is branded as MCC Alert. MCC Alert can alert the entire staff and student population via text, phone calls, email, and social media with just a few clicks of the mouse. The new MCC Alert has many benefits over the previous implementation of NY Alert and offers more flexibility and management capabilities for its potential use for critical business opportunities, communicating with students in a manner in which they are accustomed.

Ellucian Business Analysis

Technology Services entered into an agreement with Ellucian to provide an executive business analysis report for the college. The intensive two-day interviews on campus included every functional area that uses Banner or any Ellucian product. The result of the sessions was an all-encompassing report detailing the areas of the college that could benefit from a deeper business process evaluation, as well as areas where the current software is being underutilized. The report was not laying blame on any single area, but pointed out that often over time, many institutions become entrenched in the daily processes and do not see the newer functionality that is gained over the years. This remediation of the analysis will result in changes that will improve efficiencies and make a better environment for the students.

New Degree Audit System

Degree Works is a SUNY System initiative that will facilitate course transfer between SUNY campuses. This system supports the completion initiative and facilitates student mobility from SUNY campus to SUNY campus. The system was unleashed for students in March 2015. Continued testing and functionality implementations will continue as Student Educational Planner and Student Outcome Tracking are developed and released. One of the goals of Degree Works is to allow students to better plan for their educational goals while at MCC.

Skype for Business

The campus instant messaging system (IM) was upgraded to provide additional functionality for all users. In addition to the traditional chat and video option on campus, the new Skype for Business will offer connectivity to users external to the college using the familiar Skype application. This additional offering will allow users to conduct meetings with external users and have a video presence for both parties. This functionality has been missing from the previous version and will be a benefit for the college.
Typo3

Work on the infrastructure that presents the college’s web site continued during 2015. The conversion from the previous web system also continued and is now approximately 40% complete. Work continues and training sessions are offered for those departments that are migrating to Typo3. Training is mandatory in parallel with a migration to allow the user the opportunity to work on the proper content and assist in cleaning up the issues of the migration. Once the content is ready, the information is pushed to the live servers, and the department editor is put in charge of changing content, freeing up the precious resources on the Web and Integration team.

Web Redesign

The major redesign of the college web site was completed in 2015. Work will continue to migrate old content into the new design in conjunction with the Typo3 project.

Point and Click

Health Services was the beneficiary of new software that will streamline the area and bring the college into compliance with the current standards for health information records. The application will maintain the student health record - including office visits on campus - and become the repository for all immunization records with a confirmation feed into Banner for student compliance.

Little Green Button

Technology Services installed the Little Green Button in the Counseling office. The Little Green Button is a service that will alert others in the office of potential issues. This service was a direct request of the Counseling office.

Audit Remediation

The college annual financial audit conducted by the Bonadio Group includes an IT controls audit. The 2015 audit was the first time the MCC Technology Service audit was not included in the management letter to the Board of Trustees. This accomplishment was a result of the hard work of the department to ensure that financial components of the college are kept up to date and up to current standards.

The college was also audited by the Office of State Controller (OSC). The OSC audit included software license inventory and monitoring and a review of the acceptable use policy. The results of the audit prompted the revision of the acceptable use policy and standards for software license monitoring and software installations on college owned computers. In particular, the OSC found that tighter controls of software installation may be needed. Technology Services will mirror the process set forth by the OSC and sample one percent of the computers on campus annually for software compliance.
Account Automation

Technology Services is continuing to move forward with complete account automation for everyone. Student account automation has been in use for several years and regularly checked for procedural changes that would require modifications to the account process. At this time, a student account is generated at the time a student is accepted to MCC. This allows students to access important MCC resources as soon as possible to enable them to register for classes or interact with MCC staff to ask questions or arrange for services. As students move on from MCC, the account is automatically managed and eventually removed after the student has not registered for classes for two semesters. For employees, Technology Services has been automating many accounts. The Technology Services staff continues to move to full automation to disable and finally delete accounts as employees move on from the college.

Governance Structure

A new administrative governance structure was created in 2015. This structure is composed of an Executive Committee, Administrative Systems Committee, and an IT Policy Committee. The Executive Committee reflects the views and needs of the cabinet for IT, has input on project prioritization, and reviews decisions of the Administrative Systems and IT Policy Committees. The Administrative Systems Committee will guide and direct the growth of Banner and other enterprise applications used at the college to ensure that decisions are made in the best interest of the Strategic Plan for all areas involved with the use of the systems.

Oracle Upgrade

Oracle, the database system that holds all the Banner data, was updated to the latest version to ensure continued support from Ellucian and Oracle. The database for Banner is the largest single database on the system and holds the records for every student and employee that has passed through MCC. Having this software at the latest supported version is critical for the smooth operation of Banner. Updates such as this often require down time and inconvenience to the users, but are needed to keep our systems running smoothly and safely.

Cyber Security Training Program

Cyber threats are the biggest menace to any system. Technology Services is taking the initiative to train our users to be the safest they can be online. A self-paced course was designed and implemented within Blackboard in 2015 for all employees. The training will highlight why it is important to be safe online, good security habits, privacy issues, and general cyber security knowledge to keep users safe at home and at work. The course will be updated annually, and users should revisit the course to brush up on their cyber security knowledge at least once each year. A policy for cyber security training will be forthcoming to outline how often each user is required to take the course.

Online Orientation

One key to student retention is to communicate with students on the services and benefits to being at MCC. Often, many students are not available to attend in-person orientation sessions. Technology Services partnered with Student Services to create an online orientation to better equip students with the knowledge to become students at MCC. The online
orientation system will also address the Title IX training that is now required for students entering MCC. This training will instruct students on the aspects of sexual harassment and give them resources if they feel that they are a victim of sexual harassment or aggression. The inclusion of the Title IX training into the online orientation saved MCC approximately $100,000 by not implementing an additional system to accomplish the training while still maintaining compliance with Federal regulations.

### Starfish Implementation

Another key to student retention is communication on classroom work. Starfish is the tool that can be used to do that. Technology Services partnered with Academic Services to implement Starfish in 2015 as a pilot under a grant program. The scope of the project quickly expanded and now includes about 2/3 of the total student population. The program will work with information from Blackboard and Banner to alert students to issues that need attention within the courses that are included in the pilot program. This information will be communicated with the students, instructors, and advisors to attempt to keep students on track toward their academic goals.

### Alertus Implementation

Technology Services implemented an application to push emergency alerts to the screens of all computers on campus. The project, in cooperation with Public Safety, will change the screen on the computer to relay important emergency information to the users. This system, in conjunction with the existing InformaCast (telephone displays and messages), fire systems (strobes and enunciators), and the newly implemented MCC Alert, will give MCC an advantage to communicate with students and employees in the event of an emergency on campus.

### RFP for Data and Telecomm

The latest term to impact information technology is called the ‘Internet of Things’ (IOT). The internet of things refers to any device that is connected to the internet. MCC sees the impact of the IOT spike with the number of devices that are coming on campus. Technology Services has charted steady growth in the number of wireless devices and with that, the demand for increased bandwidth to the internet. Add to that the changing culture of media streaming and teaching technologies, the need for increased bandwidth has continued (see charts in Technology by the Numbers). The need for increasing bandwidth has allowed for Technology Services to seek a Request for Proposal (RFP) every two years. The RFP process usually allows MCC to double the bandwidth service for the same costs as the previous contract. The competition for internet services has benefited the college by maintaining costs but increasing services to students and staff on a two year contract.

### SIEM Implementation

To address the increasing threat landscape, Technology Services implemented a Security Information and Event Management (SIEM) system. The SIEM system collects log and event information from 256 devices on campus and puts them in a single location for a person to review and act upon. The SIEM will become the location to alert staff of a potential hacker or a data breach. The SIEM system and staffing is critical to cyber security at MCC. The college recognized the importance of the system and staffed it accordingly to protect the infrastructure and information within the network.
MDT Development and implementation

The ever changing landscape of technology requires a system that can be nimble enough to adapt to the changes. The Microsoft Deployment Tools (MDT) is one such system. The MDT system will be utilized on staff computers to quickly and efficiently image office machines and keep them updated with the latest software packages. The system will allow technicians to automate the update processes and efficiently make the latest versions of the popular software available to users.

LanSchool Deployment

Technology Services deployed LanSchool to computers in Physics, Chemistry, Engineering Technology, Mathematics, Information and Computer Technology, Applied Technology Center, Transitional Studies, the testing center, and general classrooms. LanSchool is a computer application used to monitor, collaborate, and communicate with students over the classroom PCs. The software allows the sharing of the instructor station screen, visibility of student PCs, and other functions.

Classroom computer upgrades

Technology Services installed 261 classroom PCs over the summer session. The following locations were upgraded to Intel DQ87PG system boards: 9-155, 9-158, 9-165, 9-169, 11-202, 11-206, 9-261, 9-264, 30-5006, 30-5008, and select Smart Classrooms at Brighton and Damon City Campus.

MDF Power Upgrades

The power and cooling facilities feeding the Main Distribution Frame (MDF) were upgraded in order to replace aging equipment and expand capacity of the room. The MDF acts as one of two primary data and network centers connecting MCC to online resources such as Banner and the Internet. As a result, the uninterrupted power supply (UPS) was moved out of the room and sized appropriately for increased computing presence in the room. This project allows Technology Services to continue to virtualize additional services and deliver more IT solutions utilizing the existing room.

Fiber Channel Switch Upgrades

Technology Services implemented new Brocade fiber channel switches to provide enhanced connectivity between our servers and our EMC storage at the Brighton Campus and at the Public Safety Training Facility. We replaced 1 Gbps storage connectivity with 8 Gbps for most core services, including our VMWare server virtualization environment, Banner, and Cisco UCS (telephone system). The system, as configured, will have future upgradability to 16 Gbps fiber channel, if needed.
Domain Controller Upgrades

Technology Services implemented the most recent version of Windows Server 2012 R2 domain controllers at all campuses, allowing for an upgrade to 2012 R2 domain functional level for the college’s Active Directory environment for enhanced authentication capability. MCC also deployed the first virtualized domain controller on campus, furthering the progression toward the complete virtualization of all college systems. Current versions of domain controllers contribute to both the efficiency and security aspects of the college’s IT infrastructure.

Enhanced Data Backup and Recovery Systems

Communications and Network Systems implemented new disk-to-disk and enhanced magnetic tape backups for critical college systems using EMC NetWorker software, EMC DataDomain disk-based storage, and IBM LTO-6 magnetic tape infrastructure. These systems allow the college to send nightly backups of critical data (including virtual servers) to the EMC DataDomain disk target, achieving high levels of data de-duplication and allowing for rapid recovery. Archival backups are cloned monthly to magnetic tape for off-site storage. This upgrade allows for more comprehensive backups of the college's infrastructure and data resources.

Print Shop Move

Due to the new training room in the 3-150 suite, the Printing Services graphic production area was relocated to a renovated space within the suite. The Facilities team did a great job in making the most of the smaller space and moving the equipment with minimal downtime.

New Print Shop Services

The print shop is now offering new services –

- Mail merge services for letters and postcards is new for the print shop. With new cost effective software, the print shop can now create your print job from the original file and combine that with a list of recipients for a customized letter with accompanying envelope, pre-sorted for delivery to the post office.
- The print shop can now create customized buttons for use on campus. With new cost effective software, a department can provide the information and the hardware (buttons), and the print shop can print and assemble the buttons on campus.
- The print shop also acquired a new laminator that allows lamination of up to 36”. This is an improvement over the previous equipment which was limited to 24”. The laminator also has a quick warm up cycle and heated rollers to improve efficiency and quality.

Financial Aid Voice Response System

In response to an identified need in Financial Aid, Technology Services developed a voice response system to allow students to verify the information about student loans, grants and scholarships via a phone call. In creating the system, the purpose was to route calls quickly and efficiently to get students the information that they need without having to wait on the phone to talk to a person. The system still allows for assistance if the student finds mistakes or needs more information. The system has been utilized 3,300 times by students, saving time for students and staff.
Schedule Anywhere

Technology Services was tasked to assist in finding a solution for Public Safety to streamline the process of scheduling staff. The solution, Schedule Anywhere, was implemented and resulted in creating an efficient scheduling system to save staff time and avoid over staffing for daily operations. The process changes have resulted in reducing the time to schedule staff by 75% and saved approximately $10,000 to date. Additionally, accurate historical data leads to a more efficient schedule creation and record maintenance by the Public Safety staff.
Technology Metrics

Technology by the numbers

Campus Internet Bandwidth

Wireless Support

Campus Servers

- Internet Bandwidth
- Average Peak Utilization

- BRI AP
- DCC AP
- ATC AP
- PSTF AP
- Wireless Devices

- Total Servers
- Physical Servers
- Virtual Servers
- Staff
### Print Requests

- **Total Requests**
- **Diplomas/Certificates**
- **Request by Academic Services**
- **Requests by Student Services**
- **Requests by Administrative Services**
- **Requests by President's Office**
- **Requests by EDIWS**
Accomplishments

Oleg Vyshnyvetskyi earned his bachelor’s and master’s degrees from Rochester Institute of Technology. His master’s project was “Developing Manipulation Language for PhantomX Reactor Robotic Arm.”

Bradley Roehrig earned his Bachelor of Science degree in Information Technology from Empire State College.

Jeffrey Willard completed his master’s degree in Information Security and Assurance from Western Governors University. In addition to the degree, Jeff also earned ITIL V3, Cisco CCENT, Certified Computer Hacking Forensic Investigator and Certified Ethical Hacker Certificates.

Bob Fathergill and Christine Accorso presented at Ellucian Live 2015 with Sara Hagreen from Admissions.

Candy Shaffer earned an A.A.S. in Computer Systems Technology from MCC, a Master of Arts in Special Education and CompTIA A+ Certification.


Jeff Dunker completed his master’s degree in Information Security and Assurance from Western Governors University. In addition to the degree, Jeff also earned Cisco CCENT, Certified Computer Hacking Forensic Investigator and Certified Ethical Hacker Certificates. He also attended the NYS Cyber Security Conference and the Homeland Security Management Institute conference on Social Media Security.

Andy Latta and Drew Mead attended EMC DataDomain/Networker training as well as SUNY Technology update conference on VMWare. Both Andy and Drew participated in many vendor roadmap presentations on campus.

Brad Upson attended EMC DataDomain/Networker training and in many vendor roadmap presentations on campus.

James Clement, David Lederhouse, Michael Mendez, and Ron Dellaporta attended vendor roadmap presentations on campus.

Deb Smith attended the Cisco Live Conference and joined in vendor roadmap presentations on campus.

Carmen Josey completed Networking Essentials and Switching and Routing courses at MCC.

Michael Mendez completed Networking Essentials and Switching and Routing courses at MCC.

Scott Broberg attended CISCO UCS Test Drive, SUNY Wizard and SUNY CPD, as well as meetings of the Linux User Group of Rochester. Scott also completed the NYS Project Management Fundamentals course.

Christine Accorso was appointed as the Director of Public Affairs of the MCC chapter of AAWCC.
New Faces in Technology Services

Susan Athalye
Susan is a computer programmer for Computing and Information Technology Services. She started at MCC in February and has experience in insurance and printing industries supporting systems design and development. Prior to MCC, Susan worked with mobile app development in Apple’s iOS.

Jeff Savage
Jeff is a Technology Integration Specialist. He is responsible for maintaining systems with the primary focus of integrating dissimilar systems to share data. Jeff comes to MCC with six plus years at Finger Lakes Community College where he overhauled their identity and server infrastructures.

Candy Shaffer
Candy is a Help Desk Assistant in Communications and Network Services. She was hired full time in April and was previously a student aid and part-time technical assistant.

Kevin Simmons
Kevin is a Computer Specialist in Communications and Network Services. He is responsible for keeping the software on classroom computers up to date and works with the faculty to place the proper versions of software in the classrooms. Kevin is a graduate of MCC and was previously a system administrator at Arnold Magnetic Technologies.