April, 2017 update on ITS FY17 Goals, Projects and Major Initiatives

<u>**Information Security & Infrastructure**</u>

Reduce local network file storage
The migration of personal network file storage, aka MiddFiles home directories, to Microsoft's Office365 suite of services has been completed. End-user initiated migrations were completed in late March and automated migration of remaining content by ITS was completed in early April, together representing 23TB of data migrated to the cloud. Plans to migrate departmental shared storage continue to evolve as we learn more about the capabilities of these cloud environments and map those to the functional requirements of Middlebury's academic departments, business offices, and supported programs.

Implement Multi-Factor Authentication (MFA)
Our goal (supported by the 2016 ITS Assessment) is to improve protection of Middlebury user accounts. Our current authentication model of traditional usernames and passwords is insufficient. Account takeovers are increasing at an alarming rate. Multi-Factor Authentication (MFA) will help reduce and/or eliminate this type of security event. We have been rolling out MFA to the end-user community on an opt-in basis due to competing demands for ITS staff resources and our end-user community's capacity for concurrent technology change. Now that the migration of personal network file storage has been completed, additional ITS resources have been allocated to increase the pace of MFA adoption. More than 500 Middlebury user accounts have now been secured with MFA and ITS staff are continuing to enroll additional user accounts daily. Plans are currently being developed to transition to default in, opt-out model for all new accounts by the beginning of the Fall 2017 semester.

Improve protections for managed computers
We are in the testing phase for the move of managed Anti-Virus to the Sophos Cloud solution and we have recently added additional protections related to Anti-Malware and Anti-Ransomware to the Sophos environment. Whole-Disk Encryption has been introduced to nearly 100 managed computers and will continue through Summer 2017 via BitLocker for Windows10 and via FileVault on the Mac OS X platform. We continue to improve enterprise email security through the ongoing tuning of our SPAM filtering settings. Our recent introduction of Microsoft Office365 Advanced Threat Protection (ATP), our latest security enhancement, is already providing additional real-time protection to over 60 email accounts.

Continue network renovations to improve wireless
Students, faculty and staff demand and require better wireless networking service, indeed the performance and capacity of WiFI service confidently ranks at the top of most important and least satisfied by students of all IT services. However, the wireless networking space remains relatively immature as new protocols and standards that require new hardware are evolving at a rapid pace. We have a 4-year plan to refresh and augment all of the wireless network access points on our campuses, the rollout for FY17 has been completed.

Equip every network closet with a battery backup unit
Objective is to ensure that Middlebury is ready for VOIP telephony and reducing the impact of network services outages. It includes creating a 4-year plan to place a UPS that can be monitored in every data closet with the proper runtime for a VoIP deployment. This project is in full swing. Equipment has arrived and is currently being installed and configured. We expect to complete the FY17 portion of this project on-time, which includes approximately 50 network closets.

<u>User Services</u>

Windows 10
We are currently deploying Windows 10 on 4-year replacement computers. We are developing a project plan to evaluate the possibility of converting the rest of the campus without causing disruption to operations of the college.

Software delivery
We continue to work on improving the delivery of software to faculty, staff and students. We recently redesigned our software web page and are actively adding software where ever possible to a self-service installation model.

Proactive Support Improvements
We continue to identify and improve the classification of issues/tickets to identify opportunities for training and improved documentation to facilitate self-service opportunities and empower individuals to increasingly resolve computing questions on their own as they encounter them. Additionally, we've begun to operate our help desk in other locations throughout the Middlebury campus on a regular schedule to facilitate in person, hands on sessions.

Investigate cost savings opportunity for desktop/laptop computers
We evaluated cost and frequency of repair data to compare current warranty package with reducing the warranty purchased with computers to see if there were savings to realize. The report showed little to no opportunity for savings, and possible reduction in service.

Implementation of Video Streaming Platform (Panopto)
Video has become a platform for course work and new pedagogies, co-curricular projects and more. It is also becoming a tool for internal and external communication (including for College governance). The Library and ITS are moving forward with implementation of Panopto, a video streaming platform to support increased needs to create, as well as reliably and securely share video across the institution, both for academic and administrative purposes. Panopto is currently in the pilot phase for the spring semester. It allows users to upload, edit, store and share video with the public, within the institution, within their department, or keep it completely private.

Replace Adobe Connect and Polycom for Video Conferencing

We are in the process of Implementing Zoom to replace Adobe Connect as well as Polycom, active pilot underway with very positive feedback, adoption rate has far exceeded our expectations.

Cost Efficiency Efforts

We are in the process of installing a fax server for Middlebury use to eliminate the need for a fax card for each multi-function printer/copier, and individual telephone lines for each fax.

A proposal to reduce the number of individual printers has been submitted and approved by the Environmental Council, and is being readied for presentation to Senior Staff for consideration. If approved, we estimate an annual savings of over $80,000.00.

We conducted an analysis of equipment repair costs and warranty costs to determine if we could realize savings by eliminating the purchase of 3 year warranties for desktop computers. Unfortunately, we found no opportunity for significant savings.

We submitted an RFP to three hardware vendors to determine the feasibility of outsourcing hardware distribution for the summer programs. None of the vendors submitted a proposal, siting the lack of potential profit for so brief an engagement.

We have removed more than 150 telephone lines that were under used.

Unified Communications Proposal and Budget Request

A team from Telephone Services and Central Systems and Networks completed a thorough comparison of VOIP system providers over the past year which included a pilot of Skype for Business. In January, the team presented a clear recommendation for a Cisco/Presidio solution that includes telephony, conferencing, instant messaging and presence, work stream collaboration and is a hybrid On-Premises/Cloud solution. The budget proposal has been submitted as part of the FY18 Capital Equipment Request.

Mobile Helpdesk

Our pilot of providing weekly onsite Helpdesk support was so successful that we expanded it to Exchange Street, Marbleworks and Bicentennial Hall. Customers have begun to save up their questions knowing that the Helpdesk is coming to them, and are pleased with the face to face assistance in their office space. An unexpected benefit has been the interaction between staff and Helpdesk Student Consultants. Our Student Consultants have been so warmly welcomed in the Mobile Helpdesk locations, and have developed relationships with staff in areas of college operations that they had not previously been exposed to. We expected staff to be pleased with local tech support, but were delighted by how much our student employees enjoy providing it.

Moving storage to Microsoft OneDrive

User Services was part of a team that included Academic Technology and Central Systems and Network Services to begin the migration of on premise file server storage to Microsoft OneDrive. We chose to embark on this project by working with all staff, faculty and students to transfer the files stored in their individual home directories to OneDrive.

After considering the various ways to accomplish this, including automating the migration, we decided to use this first phase to provide a maximized learning experience for users. We selected influential representatives from each department and provided them with personal instruction so that they could then be a resource to the rest of their area during the transition. User Services provided the Project Management for this complex project, as well as supplying a large part of user guidance, education and documentation. We learned a great deal, and had the opportunity to inform the community about where their files are, how to keep them safe and secure, and the cost of storage, much of which was previously not adequately understood. Although the project took longer and was more resource intensive than we expected when we embarked on it, the investment in time and resources will continue to yield returns to the institution, especially as more cloud technology allows us to provide safe and economical file storage.

Significant Events
Media Services was required to provide support of special significance and complexity this semester, in addition to the excellent curricular support they continue to provide, including growing use of extending the classroom geographically. Bothe the Charles Murray and Edward Snowden lectures required significant and specialized media support. Grateful acknowledgement of their professionalism and dedication to the events was received from College administration.

Since January 1st:
- 10 classrooms have received media equipment upgrades.
- 6091 Requests for support were completed
- 109 desktop computers were configured and distributed
- 466 Event Support requests were completed

Enterprise Applications

Administrative Systems / ERP Assessment & Replacement
In collaboration with colleagues through the GMHEC consortium we have participated in several weeks of onsite and remote discovery sessions, product demos, product evaluations, implementation partner interviews, reference calls, and technical deep dives for the remaining two ERP and two Advancement system vendor candidates.

Website Redesign for Monterey & Middlebury Sites

In collaboration with the Office of Communications and the design vendor Digital Pulp, we are working to redesign the website for the Monterey Institute. The new site will continue to be based on the existing Drupal CMS system. The projected launch date for the new site the start of the fall, 2017. A redesign of Middlebury's site is projected for Summer 2018.

Banner migration to AWS
In collaboration with Ellucian and business partners on campus, we recently completed the migration of all Ellucian Banner hosted systems including Degree Works and the Hyperion Reporting system to Amazon Web Services (AWS)

Argos Reporting System Implementation
In collaboration with functional areas across the college we are replacing our Hyperion EPM 11 Enterprise Reporting System with the Evisions Argos reporting platform. - Argos is a modern, mobile-ready operational reporting system by Evisions. The current reporting system, Hyperion EPM 11, has reached end-of-life. The Argos platform is went live in production this winter and the migration of thousands of reports is schedule to be completed by the end of September 2017.

Star Rez Housing System Implementation
In collaboration with the Housing Office we are implementing the Star Rez housing system to replace extensively customized functionality within the Banner ERP. We anticipate finishing this project in April and May with the implementation of summer housing for Language School staff and students.

Content 7
Content is the next-generation replacement for the Nolij document management software. Human Resources, International Student and Scholar Services and BreadLoaf School of English are testing their Content implementations with a goal of going live in May. Public Safety and Undergraduate Admissions will follow by the end of summer.

Streamlining and improving processes
We are taking advantage of the Argos implementation project to provide more transparent and maintainable data feeds to new systems. Argos will allow our business partners greater access to information about their outgoing data files rather than "hiding" it behind the "black box" of Banner.

CLAC Mindshare on Identity and Access Management
April 18th and 19th Middlebury College will host over 50 staff members from 33 member schools of the Consortium of Liberal Arts Colleges (CLAC) as part of a mini-conference dedicated to identifying common problems and solutions related to Identity and Access Management (IAM). This event is being sponsored by the CLAC Mindshare initiative designed to foster communication and collaboration between liberal arts colleges. Middlebury has identified

several important use cases for an IAM solution. The Mindshare serves as an important opportunity to learn from and collaborate with other institutions and to identify how our peer schools are addressing issues and problems related to identity management, access management, and security.

Planning & Finance

Our most recent quarterly expenditure reports have been released and show that ITS is on track with its FY17 spending. Workforce planning to define a 3-year future projected organizational structure with expected staffing turn-over, succession planning and gap analysis is nearly complete.

ITS @ MIIS

Wireless Network
Continuing work on joining MIIS wireless to MiddleburyCollege (SSID) wireless network, to improve portability between campuses and improve security on this wireless network. New wireless infrastructure is in place and testing continues to ensure smooth transition. Cutover planned for late May to ensure minimal disruption to faculty and students using the old wireless network.

Computer Lifecycle
20 classroom computers upgraded, 60 faculty and staff computers replaced with 50 additional computers to be replace by fiscal year-end.

Small Classrooms Upgrade
Pilot project to augment up to ten smaller classrooms with mounted computers, to reduce labor intensive classroom laptop loan support.

Connect 4-plex VIP apartment building network
Wireless bridge installed and tested. Joining 4-plex wireless network to campus network, with testing to ensure stable WiFi network for guests.   Assessing security camera system in this area for inclusion on main campus security system.