Dear Colleagues,

Welcome to the first University of New Hampshire Information Technology Annual Report. Thank you for taking the time to review this publication. The information contained within represents the activities and progress completed during the 2014-15 academic year. These activities illustrate the dedication of the professionals charged with delivering exemplary IT services to the University of New Hampshire and beyond. Within the pages of this report you will find numerous example of initiatives that were designed to aid the University in the completion of its mission and strategic focus areas. IT employees worked with representatives from all walks of campus life to roll out new applications, build relationships, and support the broader campus community.

As a new member to the campus community, I am pleased with the progress depicted within this document and the promise held for future editions. As you consume this material, I encourage you to interact with the staff and myself on any interest that is generated.

Best regards,

Dr. Stan Waddell
Associate Vice President and Chief Information Officer
Information Technology
University of New Hampshire
ENABLING ENROLLMENT GOALS

DEGREE AUDIT APPLICATION

UNH IT enabled the Granite State College launch of DegreeWorks, an advising and degree audit application, to students and faculty under the name GPS (Graduation Planning System). The UNH launch will occur in FY15 Q2.

150% REGULATORY COMPLIANCE SUPPORT

Recent Federal legislation limits the eligibility period for subsidized loan rates to 150% of a student’s academic program length. To comply, UNH must report new enrollment data. Seven releases of Banner Financial Aid, Accounts Receivable and Student were installed to support this compliance. Custom functionality was also created to calculate and record a student’s % time, and update expected graduation date.

REPORTING & INFORMATION ENHANCEMENTS

IT enhanced Advancement reporting and information efforts by providing support for new loyalty segments, new annual funding reporting, and UNH Law constituents.

7 releases of Banner were installed along with the creation of custom functionality to support 150% Regulatory Compliance.
WELCOMING UNH LAW:
UNH IT ASSISTS WITH UNH LAW’S INTEGRATION

UNH’s Law School and Durham staff’s collaboration resulted in the successful integration into the University’s ecosystem. This included building websites, converting data, introducing our central applications, completing network improvements, migrating students, faculty, and staff to new UNH accounts, migrating to the UNH Exchange email, and getting them up-to-speed using ticketing software, and the introduction of ITSM in their culture.

- The conversion of the Law School’s previous Advancement system, Raiser’s Edge, to Banner Advancement. UNH Law’s previous Student system, CAMS Student Information System, was converted to Banner Student. Subsequent data conversion phases continue in the upcoming quarter.
- Law School data was integrated into enterprise reporting tools, and specific reporting was developed to meet Law’s needs. American Bar Association reporting also occurred, as UNH partnered with UNH Law to support the ABA report.
- Network upgrades were completed including cabling and network hardware enabled high-speed data communications (Gigabit Ethernet) to desktop computers. Increased throughput and security were also achieved via an upgrade of the network firewall to a next generation firewall.
- IT supported the integration effort of UNH Law with trained BSC staff that cleaned up a large outstanding workload of transactions.

SUPPORTING UNH LAW

During FY15, Information Technology provided support to UNH Law and enabled the Concord campus to meet their data and information needs. IT facilitated ABA reporting, financial, and enrollment/retention data needs.
REPORTS TO REGISTRAR IMPROVE VETERAN SUPPORT SERVICES

Information Technology worked with the University Registrar to provide reporting and data to improve support services provided to U.S. military veterans. The reporting solutions enable UNH staff to provide better service, outreach, and support to this important population.

FINANCIAL AID PACKAGING IMPROVES

The UNH Financial Aid office and IT partnered to implement enhancements to the Financial Aid packaging business process – a process critical to both student recruiting and retention. The enhancements improved the timeliness of Financial Aid packaging information updates for admissions applicants and students, as well as staff efficiency.

WEBCAT LITE

Webcat Lite, a new mobile app for UNH students and faculty, was successfully launched. Webcat Lite enables students to view their course grades, class schedule, and holds on their account; faculty can view class rosters.

DEGREE AUDIT APPLICATION

During the second quarter of fiscal year 2015, Granite State College went into production with the Degree Works project. At present, UNH is on target to launch in Q3 FY15.

ELEARNING NEWS

UNH IT entered into an agreement to support training and mentorship activities for up to 50 female Saudi Arabian “eLearning Pioneers” to be conducted throughout 2015 through a partnership with Open Education Consortium, Online Learning Consortium, Tufts University, UMass-Amherst, and University of California at Irvine. Participation in the program supports internationalization efforts at UNH.

TRAVEL REGISTRY SYSTEM

UNH’s Center for International Education is piloting a new Travel Registry system from the ANVIL group. The system and processes will replace a number of homegrown databases and processes used to monitor international travel of UNH students, scholars, faculty, researchers, and staff. The ANVIL product is aligned with an international insurance program which requires travelers to register trips in order to receive insurance. The ANVIL product is a cloud-based solution that provides UNH with the ability to easily monitor international threat levels and incidents, quickly identify travelers in high risk areas, and communicate with administrators, travelers, and emergency contacts as warranted.

NEW APPLICATION IMPROVES FACULTY ADVISING

Information Technology worked with Academic Advising staff to aid in implementing the new Symplicity Insight Faculty Advisor application, which will expedite the scheduling of faculty advising sessions for students.

AUTOMATED DATA FEED IMPROVES EFFICIENCES FOR OISS

Information Technology worked with the Office of International Students and Scholars (OISS) to automate the data feed from Banner HR to the Sunapsis application. Receiving this data via an automated feed will eliminate the need for it to be manually coded into Sunapsis, thus making the process more efficient.
UNH IT ASSISTS WITH SWITCH TO NEW BANK FOR STUDENT REBATE PROCESSING

Information Technology continues to work with USNH Financial and Administrative Systems (FAST) to switch to a new bank (Wells Fargo) for the majority of financial processing. Wells Fargo provides more services than previously realized, which will lead to a streamlined process. Direct Deposit for Payroll and GSC student rebate processing was converted to Wells Fargo last quarter. As part of the overall conversion from TD Bank, payroll check processing has now been switched to Citizens Bank. This entailed modifying our positive pay processes to handle the transition from TD Bank to Citizens and Wells Fargo. New processes have been developed and are in user testing for non-Payroll check processing.

EXTENDING USE OF SALESFORCE ON CAMPUS

The Salesforce Customer Relationship Management (CRM) tool was implemented within the UNH Graduate School, the University of New Hampshire Manchester, and the Peter T. Paul College of Business and Economics to provide enhanced engagement and communication capabilities for graduate level applicants and prospective graduate students. Salesforce is enabling the Graduate School to provide timely, interactive and targeted outreach and communication to prospective students.
REACHING OUT TO PROSPECTIVE STUDENTS

Undergraduate Admissions continued to use Salesforce to increase enrollment at UNH. During the year, they leveraged the tool and available data on prospective students to send out 3.67 million emails. During the prior year, 1.8 million emails were sent; undergraduate admissions doubled their outreach to prospective students.

ENROLLMENT TRENDS AND PROJECTIONS

UNH IT collaborated with the University Registrar and VPFA to provide trend and projection data for student enrollments. The developed reports reduce manual work in this area and provide more timely trend and projection data for University decision making.

UNH’s IT INFRASTRUCTURE INCLUDES:

- 155 Physical Servers
- 800 Virtual Servers
- 160 Terabytes of Central Storage

They support 55 applications and utilize 80 databases... while consuming half as much power as in 2009!

FIRSTNET CONSULTATION

UNH IT staff members Brian Shepperd - Director of Broadband Services, Scott Valcourt - Director of Strategic Technology, and UNH staff member Fay Rubin - GRANIT Project Director participated in the FirstNet State Consultation on June 9, 2015.
During the first quarter, UNH IT collaborated on over 30 projects with UNH Communications & Public Affairs to support UNH marketing and branding efforts including developing and applying new graphic standards for UNH.edu.

Collaborative efforts yielded several opportunities to promote services provided to faculty, staff, students, and citizens of New Hampshire.

Information Technology participated in resource fairs, new faculty orientation, graduate student orientation, UNH Benefits Fair, and campus events such as University Day and Cyber Security Awareness Month.

A record number of marketing campaigns for IT have been executed in collaboration with IT units. “Technology is Our Bag” paper bags were seen all over campus at several events and the UNH WiFi –

We’ve Got You Covered umbrellas were a success with students.

Video was filmed with UNH Health Service’s therapy dog, Hamilton, to highlight services available to students offered from his point of view via GoPro cameras. This cooperative effort not only raised awareness of IT services, but those of Health Services including Hamilton, himself.

In part, because of marketing efforts, the 2014 back-to-school season sales of computers, accessories, and services were 7% higher than 2013. The Out of the Box service saw a 62.5% increase in sales over last year.
UNH COMPUTER STORE

The value of products available through the UNH Computer Store was showcased through social media and at UNH University Day, UNH Faculty/Staff HR Benefits Fair, Family Weekend, Evergreen Fair, and Customer Appreciation Days. These events were often coupled with special pricing and raffles, which resulted in strong sales.

SOCIAL MEDIA

Several campaigns were launched by UNH IT to highlight services provided to staff, faculty, and students.

Several videos were added to the UNH IT YouTube channel (youtube.com/uoitnhi) featuring:
- Exchange Online Archiving
- UNH WiFi - “We’ve Got You Covered”
- UNH IT Tech Talk

A video demonstrating the use of UNH Exchange Unified Messaging was posted to UNH IT’s YouTube channel.
Hamilton, the UNH Therapy Dog - video produced with the assistance of several groups within UNH IT to highlight the UNH Computer Store, Computer Repair Services, Academic Technology Service Center, the Parker Media Lab, and Health Service’s Pet Therapy program, “Paws and Relax.”

SEEING DATA

Information Technology introduced data visualization capabilities to administrative units at UNH, and has partnered with UNH leadership to develop visualizations to demonstrate enrollment and graduation trends and depict UNH financial data. The goal of our work is to showcase UNH’s story and impact in a manner that resonates with UNH constituents and external stakeholders.

GALLOP SURVEY POLL

UNH IT partnered with University Advancement to provide data to facilitate surveying for current and former students to gain benchmark and other performance data. The survey was managed by the Gallop Organization.

ONE VIEW OF UNH

During the year, IT worked to establish a Customer Relationship Management (CRM) governing body to determine priorities and scope for use of Salesforce at UNH. This group weighs in on new requests to use Salesforce and sponsored a committee to determine how UNH departments should share and utilize data related to UNH constituents and contacts.
EXPANDING THE REACH OF COOPERATIVE EXTENSION

UNH Cooperative Extension expanded their use of Salesforce during the fiscal year and is now using the Customer Relationship Management application to send their state-wide newsletters. Salesforce has enabled Cooperative Extension to consolidate several disparate email marketing tools and was able to send out 11,000 newsletters without any issue.

UNH IT ROLLS OUT NEW WEBSITE

UNH Information Technology has a new website at http://unh.edu/it. This new, mobile-ready, ADA-compliant site includes a knowledgebase for self-service help, a service catalog (which lists all IT-related services and functions), and a new embedded blog for Signals: IT News.

The new website, launched on Thursday, May 14, was the result of a cross-functional collaboration consisting of all UNH IT departments. This project is in line with the overall communications goals to create a web presence based on IT Service Management and Lean principles, as well as guidelines from UNH Communications and Public Affairs.

This project had three facets. First, UNH IT created the IT Service Catalog to outline services available to our customers. Next, UNH IT rolled out a Knowledge Base to help guide our customers to answers and instructions. And lastly, the new IT site will serve as a repository for our departments and initiatives. The new website serves as an IT News portal, featuring the new home for Signals: IT News, IT Service Announcements, and individual department blogs and Twitter feeds.

UNH IT RELAUNCHES NEWSLETTER VIA EMAIL

UNH IT reintroduced Signals: IT News as a regular e-newsletter via email to UNH faculty and staff. Throughout the past few years, constituents were less informed of IT initiatives as a result of the change in our delivery method. Data revealed our clients need multiple communication channels to stay informed of changes to products, services, and events. The recent emergence of Signals: IT News via email nets much higher readership to keep customers informed.

PARTICIPATION AT UNH ORIENTATION

The UNH Computer Store showcased its value proposition to thousands of incoming students throughout Admitted Students Day and orientations. While not every conversation leads to an immediate sale, communicating the store’s value can result in computer purchases over the summer, a simple ink cartridge replacement in the fall, or anywhere in between.

STUDENT TECHNOLOGY LIAISON PROGRAM

Starting in January 2015, UNH IT partnered with 10 students to form the Student Technology Liaison Program. This group meets monthly to discuss, provide feedback, and potentially test new and existing IT-offered services and products. This group also act as liaisons between UNH IT and other UNH Students. Various IT subject matter experts met with the Tech Liaisons, and included presentations and discussion on Box, Qualtrics, and the UNH Wireless Network. All 10 students will return in fall 2015, including at least three new recruits, to continue working with IT in this role.
UNH IT COFFEE TALK

UNH IT hosted a series of informal presentations on IT-related products and services in a forum known as UNH IT Coffee Talk. This series is part of a larger effort to provide in-person demonstrations to UNH students, faculty, and staff on various products, followed by question-and-answer sessions. Presentations included Box, the Accounts Management System, SharePoint, Qualtrics, Unified Messaging, Lean, and an introduction to incoming CIO Stan Waddell. This series will continue in fall 2015.

UNH IT RECOGNIZED AS KEY CONTRIBUTOR TO EXPANSION OF CARRIER-NEUTRAL 4G LTE VOICE AND DATA SERVICE AND HIGH-CAPACITY BROADBAND IN COOS COUNTY

For the past two years, UNH IT has participated in a team throughout the State of New Hampshire for the purpose of getting a neutral cell carrier to provide voice and data 4G LTE service and high-capacity broadband. The project, “North Country Cell Service Initiative”, plans to provide vital communication and Internet access to a region of NH in desperate need. Efforts will support residents while attracting well-paying jobs, tourists, and new industry.
UNH IT AND OUR PARTICIPATION TO DEVELOP NH’S FIRST RESPONDER BROADBAND NETWORK

In response to the passage of Senate Bill 46, New Hampshire formed the Statewide Interoperability Executive Committee (SIEC) to develop the state’s FirstNet network. As participants of the SIEC, UNH Broadband Services, UNH Office of Strategic Technology, and UNH GRANIT have been providing expert consultation to the New Hampshire Public Safety Department in developing its strategy to acquire and implement the NH portion of the FirstNet national first responder broadband network ($7.2B grant program administered by NTIA.) The network will provide emergency responders with the first nationwide high-speed broadband network dedicated to public safety.

UNH IT’S CONNECTNH PROVIDES SERVICES TO NORTH COUNTRY, SUPPORTS STEM

ConnectNH, UNH’s video collaboration network for distance learning, telehealth and outreach, has been busy providing services and capacity expansion throughout the state. Highlights of these services are:

- Provided live streaming and capturing of the NH Governor’s Commission on Medicaid Care Management on 1/8/15 from the NH LOB
- Colebrook High School has been utilizing the ConnectNH services to teach AP Math Classes via videoconferencing to other North Country Schools.
- Northern Human Services has been utilizing services for telepsychiatry and staff training.
- White Mountain Community College used our services for Distance Learning of Med-Teach and other programs between Berlin and Littleton campuses and is expanding the program this year.
- Began a pilot program to assist Granite State College in utilizing videoconferencing to connect a Vermont professor of nutrition to a classroom at GSC Conway and one student in Lebanon. Without videoconferencing services this GSC Conway class might have been cancelled due to the lack of an instructor. This new format opens new possibilities for GSC with its multi-site campus structure.
- Collaborated on pilot EMT Training from Lakes Region Community College to White Mountain Community College over ConnectNH
- Managed a USDA RUS grant that provided videoconferencing systems to two Midstate Heath locations, the Lincoln Library, the NH Fire Academy, two EMS locations, and the Richard Flynn Fire Academy
- Assisted the Great Bay Community College, Lakes Region Community College and River Valley Community College to secure new videoconferencing systems to expanding distance learning between campuses
- Collaborated on a grant with Mainely Girls to provide monthly Town Hall Meetings via videoconference with clinicians from Maine, New Hampshire and Vermont

An excerpt from New Hampshire Business Review, March 6, 2015, explains why access to broadband is critical to the economy, “Take the health care sector: Northern Human Services, which provides health services to Carroll and Coös counties, faced huge challenges serving its largely rural population. Thanks to a new network set up by ConnectNH at the University of New Hampshire, people in rural parts of these counties have access to experts through a new telehealth network.”

According to ConnectNH’s director, George Fryburg, “We are using two-way interactive video, which can be a live feed from one’s desktop or videoconferencing system, so patients can get consultation from experts and specialists who can provide diagnosis and make recommendations on the next level of care.”
SUPPORTING STEM EDUCATION GOALS

The University’s support of the academic disciplines of science, technology, engineering, and mathematics (STEM) is central to our mission. UNH IT provides support by identifying opportunities, funding, and UNH resources to pursue innovative and educational projects for UNH faculty and students in STEM. UNH IT’s support often includes project investigation, facilitation, and project management for those pursuits. The following are a few of the projects in FY15 that UNH IT is involved with to support STEM education.

REMOTE HEALTHCARE DEVICE COMMUNICATIONS

Skin is an indicator of our health in countless ways. UNH IT manages a project/grant to develop a communication protocol for a healthcare device, worn on the wrist, which is capable of sending continuous data and alerts to caregivers/patients. Sensors reading the skin collect data that can be sent to a monitoring system (such as a VNA or other healthcare agency) for analysis. If necessary, alerts can be sent to a patient, family member, or caregiver through texts or an app on a smartphone allowing for early intervention of a medical issue and fewer complications from chronic illnesses.

Over this quarter, UNH IT received approval to extend the NHIRC 2014 grant through the end of FY15 and received a second NHIRC grant that goes into FY16. UNH students and faculty in the Computer Science department are enhancing the communications protocol they developed between the Lamprey Networks, Inc. (LNI) remote device and the server to be used in home health device communications.

The enhancements will lead to standardization efforts in the Institute of Electrical and Electronics Engineers (IEEE) and allow for more common, off-the-shelf devices to interface with the LNI product and make home healthcare devices easier and less expensive to acquire. Continued research into the use of voice authentication with the LNI device has taken place this quarter, with more integration of the device’s microphone and speakers to enhance the user experience.
SHOALS MARINE LAB TELECOMMUNICATIONS

The National Science Foundation’s Field Station and Marine Laboratory (FSML) program awarded UNH a grant to upgrade the network connectivity to Appledore Island in the Isle of Shoals, where the Shoals Marine Laboratory (SML) offers summer-long programs and performs key marine sciences research year-round.

During the planning process, the project considered some lower cost alternatives than originally planned to offer a more robust network delivery service to the island. A Request for Proposal was released for the installation of a microwave link from the mainland to the island.

The island underwent a complete wiring of fiber optic cable to all 12 buildings and the installation of WiFi networking covering the entire island. Additionally, two Polycom video conferencing systems were installed for SML faculty and staff to use these tools in the educational process and originate programming from the island and link in guest researchers to the island.

In the start of the next FY, the UNH network will fully extend to Shoals Marine Lab via a microwave wireless link offering a 50-fold increase in connectivity.

BIG DATA PROJECT

The National Science Foundation’s Campus Cyberinfrastructure: Network Integration and Engineering (CC-NIE) grant program awarded to UNH funding to develop a state-of-the-art Science DMZ to move large datasets between UNH and other sites off campus.

The Science DMZ is a subnetwork designed to handle high volume data transfers required to support science and technology. The design and equipment order was reviewed by the Science Advisory Group of the project, which included site visits to all UNH campus buildings where the Science DMZ network reside.

A complete equipment order was submitted to the awarded vendors. The core 100 Gbps switch was installed on the campus network, as well as the data transfer node (DTN) was moved to the new core switch.

Once the first test experiments pass and the local and remote IT professionals have completed the initial proof of concept and tuning, the Broadband Services group, along with Strategic Technology, will finalize a complete deployment and measurement of the Science DMZ on the UNH campus in the first quarter of FY16.

STATE BROADBAND INITIATIVE

In the final year of the five year federal American Recovery and Reinvestment Act (ARRA) grant award, two revisions of the cumulative state broadband plan draft were reviewed. This broadband plan was a strategic application of the key points generated by the state Broadband Stakeholder Groups in the 9 regions of New Hampshire.

Training sessions and technical assistance tools were posted on the iwantbroadbandnh.com website, along with the broadband plans being field tested with three communities in NH that meet regularly to step through the implementation of actions that have an impact on the delivery of broadband in those three towns.

The mapping portion of the project saw the acceptance of the final submission to both the FCC and the National Telecommunications and Information Administration (NTIA) and is preparing to extend its work into Coos County with a follow-on grant from the Northern Boarders Regional Commission (NBRC) launching a rural addressing project identical to the project the SBI grant performed in 2012-2013.

The National Telecommunications and Information Administration (NTIA) State Broadband Initiative (SBI) completed the 90-day closeout this quarter and the project was formally closed.
RESEARCH AND RESEARCH COMMERCIALIZATION GOALS

Many of IT’s accomplishments to support STEM education also directly support Research and Research Commercialization. In addition to those already mentioned, UNH IT supported these goals with the following projects.

LEVELING RESOURCE ALLOCATIONS FOR UNH RESEARCH

UNH IT partnered with the Provost’s Office, the College of Engineering and Physical Sciences, and the College of Life Sciences and Agriculture to develop reporting that will provide Deans with information to help determine whether the assignment of resources, especially space, is consistent with research grants proposed and awarded, graduate students assigned and paid, and research spending. By combining cross-institutional human resource, financial, and space utilization information into a consolidated report, expenditure data can be analyzed in terms of resources used. In addition, the report provides colleges a way to see cross-discipline, as well as intra-collegiate, expenditures.

CONSOLIDATING UNH RESEARCH AND CITATIONS

Two teams from UNH IT collaborated with Research Information Technology to implement the new Symplectic Elements application, which will capture all UNH research-active staff so that the Elements server can search the web to harvest research and citations related to each researcher.
REMOTE HEALTHCARE DEVICE

A follow-on grant award in the NHIRC program was made to UNH and Lamprey Networks, Inc. (LNI) that includes the team of Computer Science (CS), LNI and UNH IT to integrate skin sensing technology into the LNI remote healthcare device. Working with a spinout company of the Massachusetts Institute of Technology’s (MIT) Media Lab, called Empatica, the project seeks to use the measurement of sympathetic systems to remotely and more accurately monitor medication adherence by users, particularly those of the elderly who may have difficulty in remembering to consume medication.

The team also believes that a number of other potential uses may emerge once the sensing device is integrated into the LNI system. Four sample devices are being used by research team members, and a graduate student in applied mathematics is examining the output data and existing algorithmic research papers to identify triggers in the data pattern that point to anomalies in the recorded data patterns in an effort to apply those algorithms in real-time. In parallel, work is underway to transfer the data from the watch-like device to local storage to aid in the analysis of the data patterns.

SMART BED PLATFORM FOR SLEEP APNEA SUFFERERS

This project involved the development of a smart system, which gathers observation sensor data from a sleeping user in a sensor bed. Using the data, the smart system provides control signals to automatically control a moving bed platform to reposition the sleeper with a specific target for the treatment of sleep apnea.

UNH IT manages the project and facilitated the formation of a partner group including Computer Science, Electrical and Computer Engineering, Lamprey Networks, Inc. of Durham (LNI) and the UNH Institute on Health Policy and Practice. The bulk of the project was designed in fall 2014. After winning the UNH internal competition, the project filed a Letter of Intent and final proposal to the National Science Foundation for possible funding. Award notification should occur in the summer of 2015.

BDHUBS PROPOSAL (BIG DATA)

A National Science Foundation program, called BDHubs, was submitted by Columbia University as the lead institution in a program designed to build four regional “Big Data” hubs – West, South, Central and Northeast. These hubs will become physical and virtual gathering places for researchers involved in large data sets and seeking to solve complex problems in a collaborative way. Four UNH faculty and staff are part of the design team of the Northeast BDHub and hope that, when awarded, UNH will play a role in the acquisition of new funding in the area of large data sets.

VANDYKE SECURE DATA REPOSITORY

The new VanDyke Secure Data Repository is available for the storage of legally regulated, or otherwise classified sensitive data. The VanDyke solution leverages full data encryption at-rest functionality provided by UNH’s pre-existing PGP (Pretty Good Privacy) Universal environment.

MANAGING RESEARCH AND INTELLECTUAL PROPERTY WITH SALESFORCE

UNH IT worked with UNH Innovation and the UNH Interoperability Lab to implement Salesforce, a leading Customer Relationship Management (CRM) solution. Salesforce is enabling these organizations to more efficiently fulfill their missions. UNH Innovation uses Salesforce to more closely manage relationships with organizations interested in using UNH’s research and intellectual property. The Interoperability Lab uses Salesforce to better manage their sales funnel as they work with business and industry to offer technology testing and membership-related services.
CO-LOCATION DATA CENTER SERVICES

In July, UNH IT completed the first phase of upgrades to provide co-location Data Center services. The first co-location partner, located in Durham, is serving components of their production services from the Data Center, which is generator-backed, power and HVAC conditioned, and water, climate and security monitored.

NETWORKNH - WIDE AREA NETWORK UPDATES

UNH IT continues to leverage the University System of New Hampshire's successful acquisition of long-haul fiber optic cable, providing huge leaps in capacity for USNH offices and campuses.

- Doubled Internet capacity to Boston (from 10 Gigabits to 20 Gigabits). This will improve Internet performance for all of USNH and provide dedicated bandwidth for the research community in support of new data-intensive science endeavors (See Science DMZ.)

- Deployed new fiber-based network connections:
  - New University System office at 5 Chenell in Concord
  - UNH Manchester move to the new Pandora building
  - UNH Cooperative Extension's new Keene location
UNH IT continued our partnership with colleagues in University Advancement to provide technical support for fundraising. During this year, we worked with Advancement to develop a new integration for student phonathon efforts, as the University’s prior vendor went out of business. In close collaboration with Advancement, UNH IT produced the required data on time. This provided Advancement with the data they needed to work towards increasing the number of alumni donors.

**ALUMNI EVENT BEHAVIOR**

In addition, UNH IT developed data models that will enable Advancement to analyze the impact of alumni event attendance based on giving behavior and outcomes. This solution will enable Advancement to determine correlations between donor involvement and giving activity, enabling them to further focus their efforts.

**603 CHALLENGE**

EIM provided behind the scenes support to facilitate the highly successfully 603 Fundraising Challenge. Work done in IT developed the algorithms needed to determine when to match funds and kept track of donor and gift tallies.

**CONTACTING CONSTITUENTS**

During this past year, EIM and University Advancement focused on improving the approach to contacting constituents and are wrapping up an initiative to review practices related to “householding” constituents. Householding is used to group constituents into “family units” and to ensure that their communication preferences are honored. Advancement is working to streamline and improve their householding practices to improve outreach and engagement with University constituents.
NEW DATA SYNCHRONIZATION

UNH IT created and implemented a new custom data synchronization process between Banner Advancement and UNH Connect (iModules). The data sync eliminates the need for duplicate data entry.

STREAMLINING COMPENSATION CHANGES

The 5 campus HR Offices across USNH award compensation increases to over 4,000 employees annually. UNH IT enabled the HR offices to upload increase records via spreadsheet, reducing processing time from weeks to minutes! UNH recently saved 160 processing hours for AAUP increase transactions due to this new functionality.

SALESFORCE

UNH IT also increased capabilities for UNH Innovation and the Interoperability Lab by rolling out mobile CRM capabilities via Salesforce. Now staff in these key areas can connect with our business and community partners anytime and anywhere.

UNH COMPUTER STORE ALIGNS WITH STRATEGIC PRIORITIES

Despite decreasing prices on consumer electronics, the UNH Computer Store was able to increase sales revenue for its important Back-to-School period. The store physically sold more computers, accessories, and peripherals year-over-year from FY14 to FY15, with major strides in selling extended warranties as well.

COMPUTER STORE VENDOR RELATIONSHIPS

The store entered a reseller agreement with B&H Photo to provide their product catalog with same-or-better pricing than individual departments working with them directly, allowing us to often provide a better price. This has already resulted in saving money for AV Services and others. Additionally, we sought out other vendor relationships for more one-off items. In the past, these would have been met with a suggestion to do business with such vendors directly.

NEW GIFT CARDS

Gift cards have replaced gift certificates at the UNH Computer Store, complete with in-house balance tracking to avoid high-fee, third-party options.

NEW PRODUCTS AT THE UNH COMPUTER STORE

The store expanded offerings to include Jabra Bluetooth headsets and speakers compliant with New Hampshire’s new hands-free law. These items are priced aggressively and in-stock today.

In addition, the store is now offering VERIDESK products, an alternative to expensive standing desks. This product is already proving to be incredibly popular.

We also launched a Touchnet, Shop UNH – Computer Store On-Line store.

TECH CONNECT IN DIMOND LIBRARY

UNH IT introduced the Tech Connect Convenience Center, its vending machine, in Dimond Library in time for final exams, when the library sees heavy traffic.

In addition to the first “Tech Connect” vending machine in Dimond Library, UNH IT launched its second at UNH Manchester in the new Pandora Mill Building. Located next to the front entrance inside the student lounge, this machine will see high traffic on a campus that has few alternatives for picking up technology products.

The store has begun working with Encore, which will allow students, faculty, and staff to get UNH Computer Store gift cards in exchange for their old Mac computer, smart phone, tablet, or iPod. Encore will pay all shipping costs and provide a commission for products sent to them.
SUPPORT, IMPROVEMENTS, AND NEW SERVICES

In order to support the University and the core mission, UNH IT is constantly searching for new and innovative ways to improve and provide the best services available. Here are a few highlights from a long list completed this year.

EXCHANGE 2013 UPGRADE

Exchange servers were upgraded from 2010 to 2013 this June. We have doubled quotas from 1 GB to 2 GB, the Outlook Web App (exchange.unh.edu) has a new look and feel, and now supports off-line access for composing emails when not connected to the internet.

BOX @ UNH

In September, UNH IT launched a new collaboration service, Box @ UNH. The cloud-based file sharing and storage service can be accessed through any device: desktop, laptop, tablet, or phone; and on most operating systems (such as Android or iOS). Box @ UNH makes it easy for faculty, staff, and students to collaborate, save data, organize files and manage file and folder permissions. Each user receives 50 GB of storage.

UNIFIED MESSAGING

The Exchange Unified Messaging (UM) pilot is complete and the migration of all campus voice mailboxes will begin shortly. UM allows your Exchange mailbox to be a central workstation for your email, missed phone calls, and voicemails. When you miss a phone call or receive a voicemail, you will receive an email message in your Exchange mailbox. For missed calls, the message displays the caller’s name and the time of the call. For voicemails, an email message with an mp3 attachment of the voicemail is sent, with preview content labeled, Voice Mail Preview.

UNH CHAT

Use of Chat Support Service Expands
Help via chat gaining popularity and a new chat instance for use within the clusters was developed. This resulted in reducing staffing requirement in clusters.
VDI SERVICES

Virtual Desktop Infrastructure (VDI) technology provides a centrally managed desktop environment that reduces support costs. Several public campus computer labs use low-cost endpoint devices with VDI services instead of traditional computers. VDI allows users 24/7 access to applications from their personal computers. Some classes began using vDesk in 2014 to access student technology fee-funded software in online courses and to use customized, personal environments for coursework. The IT Training Lab at 1 Leavitt Lane was converted to VDI technology as part of the pilot program.

WIFI IMPROVEMENTS ON DURHAM CAMPUS

Over the summer of 2014, UNH IT completed several WiFi service improvements, including the addition of 1,000+ new access points in 32 academic buildings, increasing wireless coverage by 75%. Wireless network names (SSIDs) were also changed, to better reflect their use. The UNH Secure wireless network is now the preferred network and provides secure connections for 80% of UNH’s wireless users.

JAVA MANAGEMENT

UNH IT has 733 Enterprise Application clients with Java Management installations. Java Management provides for pushed updates of the Java client to Enterprise Application users without client intervention. In addition, Java Management installs a tool that allows IT to push Microsoft updates. As a protection to our clients, IT holds back any patches from Microsoft, with associated alerts. In May, Microsoft released a patch that caused the UNH community considerable interruption. Those using Java Management did not receive this patch.

NEW SHAREPOINT 2013 APPLICATIONS ADDED

In response to client requests we have added three applications that extend/enhance SharePoint’s utility:
- Forms builder
- Dashboard
- Workflow

UNH TELEVISION

UNH-TV, a communication service available on screens across campus and UNH cableTV, was implemented. Currently, 9 screens are subscribed. Locations include such high-traffic, high-visibility places as Dimond Library, the MUB Food Court, and Paul College. Content is managed by UNH Communications and Public Affairs.

VMWARE NSX

Virtual networking is currently being implemented to create a first ever software-defined network for UNH which will assist with expanding our private cloud services that currently exceed 1,000 virtual servers.

UNH POLICE DISPATCH

Information Technology managed the update of IMC, the core enterprise application environment serving the University of New Hampshire Police Department. The update allows University Police to provision enhanced Dispatch and Case Management services supporting the UNH community and other 3rd party Public Safety agencies.
BANNER DOCUMENT RETENTION

The University of New Hampshire recently purchased the Banner Document Retention software, which can help the University reduce operating expenses and legal risks. When information that is no longer needed is removed, staff and faculty can access documents faster though accelerated searches and better performance. Likewise, removal of unneeded information elevates institutional data stewardship and privacy protection.

Since the University of New Hampshire has many terabytes of storage in Banner Document Management, it faces compliance and legal risks by retaining documents longer than department policy allows. The University faces added storage expenses due to additional back-up time, and slower performance issues.

This project has several components, the first being to purchase, install, and configure the system with other Ellucian products, such as Web Services. The second component is to work with the various offices on campus to design a retention strategy that will match their specific document retention policy. The first group being considered is the UNH Admissions Office, since they have the most immediate need. The Document Management Group will be working with the various offices to develop retention rules for documents that exist within the AppXtender applications.

GET YOUR LEAN ON!

In participation with the State of NH, UNH hosted the 3rd Annual State of NH Lean Awards Forum which was attended by over 100 UNH, State of NH, and non-profit employees and leaders. Keynote speakers included President Huddleston, Eric Herr from the State of NH Innovation Committee, and State of NH Commissioner Tom Burack, with in-coming UNH VPFA Chris Clement closing out the day. It provided a message of embracing a culture of self-evaluation and continuous incremental improvement. The State and UNH displayed examples of Lean projects that were conducted by UNH and State employees and submissions from student projects.

An Introduction to Lean Training course was created and piloted. To date, 27 UNH employees have attended training. The course will be generally available starting in March, 2015. 17 UNH employees from the PMO, Housing, and Dining became Yellow Belt Certified through the State of NH and are actively engaged in process improvement projects within their departments.

Lean Sessions Conducted With:

- The FAMIS project team developing current and future state process maps for the Space Allocation project and moving towards cross departmental standardization.
- EOS BSC resulting in a comprehensive list of Lean project opportunities.
- The International Travel Registry project team resulting in clear documentation of current and future state process maps foundational for use in developing operating procedures.

Get Your Lean On, Pt 2!

An Introduction to Lean Training course was created for UNH faculty and staff. The course began in March, 2015. Among those trained were 24 staff from a department within IT. After training, several proposals for lean initiatives emerged; some proposals were represented at Yellow Belt training and are in the process of being implemented. In June 2015, six UNH staff and one member of the State of New Hampshire Homeland Security completed their Lean Green Belt Certifications offered by the UNH Project Management Office (PMO).
ITIL FOUNDATIONS TRAINING FOR UNH IT STAFF

In support of IT’s commitment to IT Service Management and continuous professional development in this area, UNH IT coordinated an on-site training session for ITIL Foundations. The move to host training on campus instead of staff traveling saved thousands of dollars per attendee.

IT CHANGE MANAGEMENT INITIATIVE UNDERWAY

A cross functional project was launched within UNH IT focusing on Change Management. The project will provide a standardized process for implementing technology changes within the ITIL framework.

Although there are elements of Change Management in place, there is not a consistent, standardized methodology to address changes made to production systems within and across UNH IT. This can result in issues with communication and make outage investigation more challenging. In order to improve this process, a UNH IT wide project has been initiated to implement a stream-lined, ITIL-aligned Change Management Model that will be used across UNH IT and Academic Technology.

The objectives of this project are to:
• Enhance our ability to respond to the changing business requirements of our customers while maximizing value and reducing incidents, disruption, and rework.
• Improve internal and external communication and change awareness, minimize the impact of change on service quality, and support reliable, continuous access to services.
• Ensure changes are implemented using industry best practices.

The project team working on this effort includes members from all areas of UNH IT and AT. Implementation of the new Change Management Model is planned for February 2016.

UNH IT SERVICE CATALOG

UNH Information Technology launched the IT Service Catalog, an online listing of all services UNH IT offers to faculty, staff, students, and others at multiple USNH campuses. Each service includes a description, how to get support, and other applicable information.

This collaborative project brought staff together from across the various IT departments. The Service Catalog will continue to evolve as new services and products are brought online.

UNH IT SERVICE CATALOG

PMO WEBSITE REDESIGN

The Project Management Office released a redesign of its web site. The site has a fresh new look with simplified navigation and access to updated information and content.

The site is designed to be a resource for the community to learn more about service offerings and the project, portfolio, and process management environment at UNH/USNH, along with being a central repository for documents and tools common to the project management genre. Some of the information available on the new site includes the process for submitting Information Technology project requests for new services, detailed descriptions of project life cycle phase activities and deliverables, and templates for typical project management documents. The site also includes information about the Process Improvement Team and how they can help departments bring ideas forward, analyze current business processes, and identify areas where improvements will yield cost and/or time savings.
TEAMDYNAMIX UPGRADE

TeamDynamix, the Portfolio and Project Management collaboration software utilized across UNH and USNH, was upgraded to version 8.6.1. The new release offers several new and improved features to improve the capabilities of the tool as well as the user experience.

USDA RURAL UTILITIES SERVICE

A new Polycom Content Server has been installed and configured by the ConnectNH team in Broadband Services to complete the replacement of a returned system on the USDA Rural Utilities Service (RUS) grant in 2010. This new content server allows for the recording and delivery of content to any web-based user anywhere.

TELEHEALTH THROUGH USDA RUS

Receipt and configuration of over a dozen new video conferencing units have been made to organizations across New Hampshire as participants in the USDA Rural Utilities Service (RUS) grant in 2013. A request for the purchase of a digital x-ray machine for one of the hospital participants will make remote healthcare and diagnosis easier, and help to satisfy the core mission of the grant by offering telehealth services for rural NH. Plans are being made to potentially pursue the 2015 RUS grant.

VIDEO CAMERA OPERATIONS AT UNH

During Q2, UNH IT assumed operational ownership of the UNH Public Safety video camera infrastructure for UNH Durham and UNH Manchester.

UNH PCI/DSS STEERING COMMITTEE

UNH IT chartered the Payment Credit Industry Data Security Standard Committee, providing a framework for payment credit card processes. The steering committee ensures compliance for all POS devices.

DID YOU KNOW?

UNH IT utilizes the Ellucian document management tools and is responsible for implementing and supporting electronic document management solutions throughout all the campuses, as well as the USNH offices, enabling the campuses to be less reliant on paper.

DOCUMENT IMAGING - SOME INTERESTING FACTS

Document imaging is fully utilized for the Undergrad Admissions and Registrar offices for each campus.
- There are 4 Xtender production databases.
- Xtender user accounts total 1,715.
- There are 2 Xtender administrators.

![Top 10 UNH Mobile Apps](chart.png)

- Photos: 9,315
- Athletics: 11,666
- News: 24,354
- Courses: 29,497
- Directory: 34,740
- Events: 45,563
- Map: 50,905
- Learn: 55,760
- Dining: 399,435
- Transit: 552,651

Traffic by Module Clicks