Year in Review
2017–18 ITS Annual Report
Inside

Goals and Accomplishments
Breaking down what we’ve accomplished toward our goals in Services, Security, Scale and People.

Budget
Driving out savings as part of the University’s Budget Response initiative and aligning into a single budget.

Perspectives
Highlighting what our campus partners are saying about working with ITS and our 2017-18 OneIT initiative.

ITS Vision
We Deliver, Innovative, Trustworthy Solutions: United and Optimized.

Our Values
In collaboration with our academic communities, we will:
- Be excellent by exceeding expectations.
- Be champions for our people and our partners.
- Be great listeners who empower stakeholder needs.
- Be forward-thinking through innovation to create solutions.
- Be trustworthy through integrity, transparency, and communication.
Leadership

The 2017-18 Academic Year was a time of transformational change for IT at the University of Nebraska. As we came together through the OneIT initiative into a unified organization, we also joined our partners across the university in widespread budget reduction efforts. Our dedicated staff responded to these needs with tremendous effort - demonstrating fortitude in adjusting to new teams, projects, and processes that accompanied our organizational change and showing innovation in finding efficiencies and budget savings in new ways. It was not always easy, but the progress we made together has been remarkable.

Our IT organization is committed to providing outstanding service to the students, faculty and staff of the University of Nebraska. We recognize that teaching, learning, research, creative activity, and student support are becoming increasingly more complex and interconnected each year. We value the opportunity to be a strategic partner in shaping solutions that help our partners reach their goals. We know how important it is to be both great listeners and forward-thinking collaborators, all while creating a secure environment that minimizes risk to the university. These perspectives are woven throughout our IT vision statement, organizational values, and goals, which were shaped this year during our strategic planning process.

I invite you to take a look at this 2017-18 Year in Review – our first comprehensive annual report since the start of the OneIT initiative. We are energized by the progress we made during this important year for our organization, and we share these accomplishments with our partners across the University of Nebraska.

-Mark Askren, Vice President for IT

"Our unified ITS organization is helping us accomplish things we simply would not have been able to before."

- Bret Blackman, Associate Vice President for IT
Our Commitment to the Campuses

The mission of the University of Nebraska states that, where appropriate, the resources of the campuses should be linked in cooperative efforts. To maximize the benefits of resources available to the institution, the University system should realize economies that may accrue from a scale of operations whenever possible. In 2017-18, the OneIT initiative was launched in support of this mission.

Teams from UNK, UNL, UNO and the NU ITS Enterprise Systems team formed into a unified ITS division aligning to the strategic needs of the University of Nebraska and each campus. The unified division also has worked closely with UNMC on procurement and standardized technologies. A new leadership structure that balances campus needs and leverages scale through a shared services model was also created to oversee and help guide the new NU ITS team. This structure includes a unified budget and five scaled services areas – Security, Infrastructure, Client Services, Enterprise Services, and Strategy & Planning. In addition to our scaled services divisions, we have formed Communities of Practice in Academic Technology and Application Development. Teams in each of these areas are present on each campus and interact closely with faculty, students and staff for training, support and service delivery. Reporting to each campus CIO, our Academic Technology and Application Development groups are focused on meeting the unique needs of our local campus communities while also engaging in system-wide knowledge sharing and identification of best practices.

Our organization is led by three teams working together in support of our university community: a Senior Leadership Team focused on strategy and direction; a Senior Management Team focused on resources and organizational health; and a Senior Operations Team focused on solutions and results.

Our Strategic Goals

This annual report is organized around our four strategic goals: services, security, scale, and people. In partnership with our campus communities, we are making every effort to align our work to one or more of these goals and relentlessly improve our service offerings and support.

**Services**

Provide outstanding IT services that are consistent and reliable across all locations, well understood, and valued by faculty, staff and students.

**Secure**

Create a safe and secure environment that minimizes risk and enables the university community to do their work through transformative technology.

**Scale**

Work together to achieve economies of scale so that we optimize resources, deliver on our financial commitments, and reallocate resources for emerging needs and innovation.

**People**

Commit to investing in people so that we build an exceptional work environment with avenues for advancement and growth, and maintain a culture that embraces diversity in all forms.
As our campuses at Kearney, Lincoln, and Omaha came together with the University of Nebraska Central Administration IT department in 2017, we estimated that we utilized just 20% of common services across our different campus environments. We set an early goal of shifting this figure from 20% shared services and tools to 80% shared.

In 2017-18, we made significant progress in aligning services across our campuses in areas such as the learning management system, video content management system, video conferencing platform, two-factor authentication solution, antivirus tools, firewalls, malware protection systems, storage system, student printing solution, imaging, remote desktop support tool, and digital door signage platform. In addition, we created a single change management process, which has significantly increased our awareness and communication across multiple campuses. This effort allowed us to extend the best technology and services at one of our campuses to be available across our multi-campus environment.

This alignment has been vital to help us increase our ability to provide a consistent, reliable user experience across the system while also increasing convenience for our staff and users. In addition, several of our standard solutions significantly improved the security of our teaching and learning environment for faculty and students while also focusing on increasing accessibility and student affordability.

Our ITS Services are:

<table>
<thead>
<tr>
<th>CONSISTENT</th>
<th>RELIABLE</th>
<th>VALUED BY USERS</th>
</tr>
</thead>
<tbody>
<tr>
<td>696.7 TB Box Data</td>
<td>20,236 Devices Supported</td>
<td>65 Wepa Printing Stations</td>
</tr>
<tr>
<td>106,650 Help Desk Calls</td>
<td>11,977 Password Re-Sets</td>
<td></td>
</tr>
</tbody>
</table>
Security

Prior to 2017-18, cyber attacks against NU data and systems outmatched the security resources of any of our campuses alone. The subsequent unification of the ITS Security team across the University of Nebraska system is one of the biggest success stories for ITS in the past year.

A single Information Security division has allowed us to reallocate resources to benefit the entire university at scale. NU now benefits from updated, coordinated, and standardized security process, more sophisticated tools, and more universal access to our security professionals. University-wide efforts like our OpsSecure Initiative took a deep look at programs, tools, and IT assets across the system to take a holistic approach to increasing scale and efficiency. Identifying primary risks like email and network-based threats led to the deployment of security tools like Palo Alto and Proofpoint. These efforts have reduced the impact of phishing attacks by more than 75% and improved our security posture across the entire NU System. Our enterprise agreement with Palo Alto provides the entire University with a best-of-class tool at a multi-campus savings of $300,000. Palo Alto can now be supported by two staff members for the system rather than two individuals at each campus, further freeing resources for other efforts.

Through the OneIT Initiative, ITS has made significant progress toward our stated goal of being Safe and Secure. IT Security Services has leveraged scale and increased the number of staff protecting the entire university. Individuals with unique security specializations maximize their value to our entire organization and have greater opportunity for career development and advancement.

Our ITS Security efforts:

<table>
<thead>
<tr>
<th>MINIMIZE RISK</th>
<th>INCREASE AWARENESS</th>
<th>EMPOWER USERS</th>
</tr>
</thead>
<tbody>
<tr>
<td>284 M</td>
<td>102</td>
<td>22,000+</td>
</tr>
<tr>
<td>Total Monthly Threats</td>
<td>Third-Party Assessments</td>
<td>Endpoints Secured</td>
</tr>
<tr>
<td>10,000+</td>
<td>1.3M</td>
<td></td>
</tr>
<tr>
<td>Two-Factor Users</td>
<td>Identities Managed</td>
<td></td>
</tr>
</tbody>
</table>

OUR UNIVERSITY. FOUR CAMPUSES. ONE NEBRASKA.
Scale

As a unified organization, our opportunities for scale have never been better. Some big wins in 2017-18 came in the area of Academic Technology, where after extensive piloting, we were able to align into not only Canvas for our Learning Management System, but also VidGrid and Turnitin for Video Content Management and Plagiarism Detection Software. Through this work, we decommissioned locally hosted, legacy systems and scaled to the cloud. We saved money and added agile, accessible features that are truly transforming the learning environment for faculty and students. For the first time, we also have a standard video conferencing tool across the NU system – Zoom – which has made connecting for classes and meetings convenient and straightforward. By bringing users into consistent systems, not only are we able to scale, but we also set the stage to identify new opportunities for streamlining our users’ experience across campuses and improve our usage data in order to fill gaps and make future, well-informed decisions.

Behind the scenes, our Infrastructure Division also made significant progress to scale by moving VMWare at UNO into a consolidated atmosphere with UNL, in addition to completing a substantial upgrade to the intercampus network, which created savings on equipment and contracts. As Deb Schroeder, CIO of the Kearney campus, notes, "The ITS vision to deliver Innovative Trustworthy Solutions benefits teaching and learning and the business of the campus."

OurEfforts to Scale Help Us To:

**OPTIMIZE RESOURCES**
- **13,939** Canvas Courses
- **45,876** Canvas Users

**INNOVATE**
- **593,040** VidGrid Minutes Recorded
- **192,041** Turnitin Papers Scanned

**DELIVER ON FINANCIAL COMMITMENTS**
- **40,870** Zoom Meetings
- **3,888** Zoom Users
People

We are launching new programs and continually identifying ways to invest in our valued ITS staff and create an exceptional workplace environment. Our team is critical to carrying out the work of ITS through their dedicated service and support of students, faculty, and staff across the NU system. As we broadened our scope of work and unified teams across our organization, we prioritized creating intentional career paths for our staff in order to retain top talent and advance our organization.

As we celebrate and promote the people and purpose of our organization, we aim to create opportunities to facilitate and develop networking and relationship-building to empower staff to be involved both within our department and through relevant consortiums and national organizations. Members of our staff participate and play leadership roles in the BigTen Academic Alliance IT groups, Unizin, Common Solutions Group (CSG), and EDUCAUSE, to name a few. Since 2011, cohorts of Nebraska ITS staff have had the opportunity to be a part of the MOR IT Leadership Program, which focuses on feedback, goals, coaching, and delivering results. We also host three conferences that bring together state, regional, and even national audiences: The Nebraska Higher Education User Conference (HEUC), the Innovation in Pedagogy and Technology Symposium, and the Woman Advance IT Conference.

As we step back and recognize some of the extraordinary efforts of our ITS staff, we have begun presenting individuals and teams with the Technology Excellence Award and the Rick Fredericks Awards for Collaboration. We also prioritize listening to our staff members’ opinions and needs about the workplace, issuing a climate survey to all staff and implementing strategies and initiatives based on results.

Investing in our ITS staff to:

- **CREATE AVENUES FOR ADVANCEMENT**
  - 312 Staff Members

- **BUILD AN EXCEPTIONAL WORK ENVIRONMENT**
  - 3 Hosted Conferences
  - 108 Student Workers

- **DEVELOP CRITICAL JOB SKILLS**
  - 94% of staff Are Proud to Work at NU
  - 112 MOR ITLP Graduates
  - 92% of staff Enjoy Their Work
The University of Nebraska has two primary ERP systems: the Nebraska Business Information System (NeBIS) and the Nebraska Student Information System (NeSIS). These two systems comprise the core business and student services for the University of Nebraska and Nebraska State College System. A strong partnership between the Office of the Executive Vice President and Provost (who serves as the Executive Sponsor), the ERP system teams, and NU ITS is vital to the ongoing support, maintenance, and success of the NeSIS and NeBIS systems and its associated components.

This past year, the ERP systems teams made significant contributions improving the services to students, faculty and staff, resulting in enhanced, efficient, effective, accessible and safe operations. Initiatives also focused on providing the highest level of consistency, data integrity, security, and reporting tools that are needed to ensure information can be relied upon and useful for advanced planning and decision-making.

In addition, University of Nebraska ITS provides technical support for Network Nebraska, in partnership with the State of Nebraska. This multipurpose telecommunications backbone provides some of the lowest bandwidth costs in the country, in addition to intra-state connectivity. Network Nebraska improves the quality, reliability, and speed of telecommunications services for all K-12 public school districts, Educational Service Units, public universities, state colleges, and community/tribal colleges, in addition to some private colleges/universities, private K-12 schools, and public libraries.

---

### Our support is:

<table>
<thead>
<tr>
<th>EFFICIENT</th>
<th>EFFECTIVE</th>
<th>ACCESSIBLE</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image1.png" alt="Diagram" /></td>
<td><img src="image2.png" alt="Diagram" /></td>
<td><img src="image3.png" alt="Diagram" /></td>
</tr>
<tr>
<td><strong>1.57M</strong></td>
<td><strong>1.27M</strong></td>
<td><strong>414,581</strong></td>
</tr>
<tr>
<td>Annual Workflows Generated in SAP</td>
<td>Annual Logins to SAP</td>
<td>Annual Invoices Processed in SAP</td>
</tr>
<tr>
<td><img src="image4.png" alt="Diagram" /></td>
<td><img src="image5.png" alt="Diagram" /></td>
<td><img src="image6.png" alt="Diagram" /></td>
</tr>
<tr>
<td><strong>1,562,844</strong></td>
<td><strong>342</strong></td>
<td></td>
</tr>
<tr>
<td>Enrollments/Drops in NeSIS</td>
<td>Change Requests in NeSIS</td>
<td></td>
</tr>
</tbody>
</table>
Budget

During 2017–18, we took considerable steps forward in building a holistic, single comprehensive budget to support and resource critical needs, projects and priorities for ITS. As part of this effort, we prioritized the development of a transparent budgeting process that identifies and brings clarity and visualization to the financial management of our organization.

As our IT organization aligned across multiple campuses and we began a process of consolidating budgets to support our single organization, we were also asked to cut $6M of permanent funds (approximately a quarter of our state funding) from our budget as part of the NU-wide Budget Response Initiative. $4.5M of our budget reduction target was released in 2017–18, a large part of which was achieved through staff reductions. This called upon our teams to do their work more efficiently. The additional $1.5M has been identified and a comprehensive action plan was launched to decommission and consolidate services in order to realize these savings in 2018–19.

Our budget helps us to provide connectivity, access, and support for nearly 49,000 students and over 3,200 faculty teaching, learning, and engaging in research at UNK, UNL, and UNO.

Breakdown of our Budget Response savings:

- **Personnel**: $3.5 million
- **IT Efficiencies**: $2 million
- **Operational Efficiencies**: $500,000
"OneIT represents what is possible when the campuses of the University of Nebraska come together for the benefit of our students, faculty and staff. As a unified, University-wide team, OneIT has become a model for improved collaboration and effectiveness. Streamlining our IT function has yielded critical – and at times difficult – budget savings, but most importantly, the process has enabled us to provide each campus with more comprehensive services than what existed before. I congratulate the entire OneIT team for their commitment to making the University of Nebraska a more efficient, more effective institution."

-Hank Bounds (President, University of Nebraska)

"We appreciate the UNK ITS team! They are not only cutting edge when it comes to technology, but are also very professional and committed to providing the best support to faculty. Whether we want to chat on the phone, or get help in person, they’re just a phone call away, available and happy to help at any time."

-Martonía (Faculty, Kearney campus)

"The transition from a campus-based team to a system-wide team through the OneIT initiative was seamless from a customer perspective. The ITS staff have continued to meet our needs when it comes to handling our access to tools and software, trouble shooting and support needs."

-Emily (Staff, Omaha campus)

"When we look at capability and convenience it is amazing how much student academic technology has improved on our campus in the past year. When the my.unl.edu portal launched at the beginning of the school year, it fulfilled a need that no student knew they had until they saw it. Now not only are we able to easily connect to two of the greatest services we have here on campus: the Digital Learning Commons and Canvas (which deliver tremendous value on their own), but we are also able to easily get access to things like the new Wepa printing service. We as students have never been more empowered and we are excited to see the continuous improvements that ITS will bring next year."

-Spencer (Student, Lincoln campus)
What's Next for ITS
Better Together - Creating Success

In 2018–19, we will:

Offer common wireless experience for users across UNK, UNL, and UNO, in addition to Extension Centers and Nebraska College of Technical Agriculture in Curtis.

Deepen our metrics through Educause ECAR student and core data surveys, as well as our biennial ITS employee climate survey.

Identify key performance metrics and work relentlessly to measure improvement toward these goals.

Increase utilization of features and analytics within Canvas, VidGrid, and Turnitin.

Consolidate our data center environments and refresh core data center infrastructure.

Establish a clear and consistent catalog to describe, promote, and support ITS services.

Continue to demonstrate our commitment to creating a highly accessible environment.

Enhance the infrastructure for delivering Open Educational Resources, low- or reduced-cost course materials.

Follow Us and Stay Up to Date

The University of Nebraska Information Technology Services unit has many more great stories to tell and partnerships to make. Follow and reach out to us in 2019–2020. Together, we will help the University of Nebraska and its campuses reach their goals.

Twitter: @NebraskaITS
Facebook.com/NebraskaITS
its.nebraska.edu
status.nebraska.edu
Email: its@nebraska.edu