Who We Are

We are WSU Spokane Information Technology Services, one team encompassing many fields of expertise – all focused on the single goal of creating a superior information technology environment for WSU Spokane’s unique multi-institutional campus. While we make our home within the WSU Spokane community, we do not see ourselves as a static department. Instead, we consider ourselves to be a dynamic business partner actively pursuing new opportunities to provide our customers with the highest level of service to help them succeed. We are defined by this commitment and continuously design, implement, and offer services and solutions in support of WSU Spokane’s greater vision of creating and maintaining a premier research and health sciences campus.

Mission Statement

Our organization, through collaborative and progressive leadership, uses its information technology resources to support the strategic mission of the campus by facilitating excellence in teaching and learning, ensuring excellence in service delivery, and supporting state-of-the-art research and discovery.

Our 5 Strategic Goals

Connect.
Provide state-of-the-art infrastructure to facilitate excellence in teaching, research, and operation.

Collaborate.
Grow and develop partnerships and alliances to advance campus initiatives.

Conserve.
Champion environmentally responsible use of technology.

Cultivate.
Promote a world-class teaching and learning environment.

Care.
Create a first-rate, customer-focused culture.

For More Information

WSU Spokane Information Technology Services (WSUS ITS)
spokane.wsu.edu/its

WSUS IT Service Catalog
spokane.wsu.edu/its/our-services

WSUS ITS Technical Support Center
509.358.7748
spok.it.help@wsu.edu
Implementing the resources to enhance our technological infrastructure

Leveraging the power of technology, Information Technology Services (ITS) at WSU Spokane supports our core mission of facilitating excellence in teaching and learning, ensuring excellence in service delivery, and supporting state-of-the-art research and discovery. Technology is the foundation that empowers the work and productivity of our students, faculty, and staff. This year, ITS bolstered that foundation through our continuing efforts to foster innovations, improve services, build new collaboration opportunities, and plan for the future.

This year’s strategy has been on track in our transition to a Lean IT business model, with a strong focus on optimizing current systems and projects, while searching for new resources to offer our health sciences campus. We’ve deployed a new wireless infrastructure and conducted an internet edge refresh to improve connectivity and increase bandwidth, in addition to engaging in the re-architecture and planning of a high-speed research network. Our classroom upgrade initiative has continued this year with the installation of high quality audiovisual tools and technology, as well as evaluating new technologies to facilitate active learning pedagogies. A new high performance computing cluster (HPCC) was installed during the spring to provide the computing power and storage necessary to support our campus researchers.

Employing the principles of Lean IT, we encouraged feedback from students, faculty, and staff through our annual spring IT survey. The survey tool enabled us to assess, plan, and provide continuous improvement to our services at WSU Spokane to benefit our customers. As a response to negative feedback concerning poor cellular coverage on campus, we performed predictive site surveys this year to determine how to improve the signals, then installed amplifiers to dramatically enhance the coverage in the areas that exhibited poor signal strength. This initiative will continue into 2017 to provide better coverage across all locations on campus.

Our focus has also included professional development from within our department through educational conferences or enabling our staff to complete various technical certifications. Using the Lean IT model in conjunction with ITIL (Information Technology Infrastructure Library), we are excited to unveil new projects, provide improvements among ITS teams, and deliver business value.

Some of our efforts this year have been in preparation for the new Elson S. Floyd College of Medicine, while continuing to enhance the IT experience for our entire campus community. For new services, we have introduced Virtual Desktop Infrastructure (VDI), allowing faculty and staff to take their desktop, documents, and computer settings with them wherever they go. We also released Pounce, a new private cloud storage solution designed to meet the University security requirements and the specialized needs of our customers.

2016 has been a year of improvement, growth, and infinite possibility. From new tools to improvements on previous systems and infrastructures, the ITS staff has dedicated themselves to delivering reliable, innovative, and secure information technology capabilities and experiences to our campus community. I am honored to present the WSU Spokane ITS Annual Report as we advance our mission and meet our strategic goals to connect, collaborate, conserve, cultivate, and care.

Saleh Elgiadi ● Campus Chief Information Officer
Washington State University Spokane
Connect.

Provide state-of-the-art infrastructure to facilitate excellence in teaching, research, and operation.
Internet Edge Refresh Increases Bandwidth Capabilities for Campus

So much of what we do as a university community is online—viewing lectures, web conferencing, performing searches for research, keeping in touch with each other via email and social networking, taking exams, and general campus business all depend on internet connectivity. Everyday more services go online and require use of the internet. To make the online experience easier and faster for our customers, ITS conducted an internet edge and border refresh in 2016. Jason Minton, our Network Engineering Manager, cites increased bandwidth and improved performance as the main results of the refresh, along with greater tools to manage internet and network traffic.

Following the project completion, the campus bandwidth increased from 1 GB to 2.2 GB, with the ability to expand further as our campus grows. One major benefit resulting from increased bandwidth is enhanced connection speed and the capacity to move large amounts of data without stressing the network resources for other users.

As part of the refresh, we also introduced a more effective routing protocol that determines the best paths for internet traffic to flow. The new routing protocol is proactive and can see conditions and traffic on each circuit, then direct ingress and egress data to the best route based on those conditions. This greatly improves the internet performance on campus and prevents traffic overload and loss of connectivity.

As more and more services, systems, and projects go online, the capability to expand our internet bandwidth will prove to be substantially beneficial as our campus growth continues.
Cell Signal Improves Across Campus

Each year, ITS releases the TechQual+ survey to students, faculty, and staff for their feedback about connectivity and access; technology and collaboration services; and support and training. This tool, which is specific to institutions of higher education, helps us assess, plan, and provide continuous improvement to our services on the WSU Spokane campus.

Data from our last two surveys indicated poor cellular coverage in some areas of several buildings on campus, especially the basements. As a response, Kenny Bisagno, with our Network team, was assigned the project to perform predictive site surveys to determine what was needed to improve the signals. It was determined that Wilson amplifiers would provide ample signal boosting capability to dramatically enhance the cellular signal coverage in those locations.

The project team has installed the Wilson amplifiers in the Academic Center, the Pharmaceutical Biomedical Sciences building, and the Nursing building. The Health Sciences building and the Eastern Washington University Center will receive these signal boosters in 2017. We are confident that this solution will provide better cellular coverage across all locations on the campus.
This year, WSU Spokane made the decision to adopt Microsoft Windows 10. After the conclusion of beta testing over Thanksgiving break, the new operating system was deployed on all classroom and library computers in our virtual desktop infrastructure. Faculty and staff are currently receiving the upgrade on their computers. This upgrade is one of many steps WSU Spokane ITS is taking to improve our cyber security as a university, as Windows 10 has proven to be more reliable and secure than previous operating systems.

Two major security features of Windows 10 are Device Guard and Credential Guard. Device Guard controls which trusted applications may operate on a device while allowing large enterprise systems like ours to employ a variety of secure applications. Credential Guard thwarts data theft by vigilant protection and storage of identities and credentials, rendering stealing passwords and roaming the network difficult.

Windows 10 is also gaining attention for its productivity boosting benefits. The start menu is back to its familiar place in the lower left corner of the screen, and features like snap, task view, and virtual desktops helps users stay organized and easily switch between apps.

As part of our initiative to simultaneously innovate and educate, training was offered on the effective use of Windows 10. In 2017, we expect to see Windows 10 employed on every office and general purpose campus computer and to play a large role in our goal to keep leading-edge technology at the forefront of our health sciences campus.
Conserving and connecting are two of WSU Spokane ITS’s strategic initiatives. In 2016, we began implementing a solution that would help us do both. Virtual Desktop Infrastructure, also known as VDI, is an innovative approach to the modern work and school lifestyle. It allows users to take their desktops with them, wherever they go, with substantial savings to the University. With VDI, a user’s desktop resides virtually in the campus data center rather than on a computer in the user’s office space. A small device sits behind the user’s monitor and links to the virtual desktop in the data center via the network. With the same look and feel as logging into a stand-alone computer, users can log in anywhere from any device and enjoy the same desktop settings, look, and feel as they would if they were sitting in their own office.

VDI, in addition to availability and accessibility, presents benefits such as reduced equipment cost, data protection, and reduced energy consumption. For example, a typical business desktop computer ranges from $1,200 to $1,400, and will only have a three to five-year lifecycle before breaking down or becoming obsolete. With a VDI unit, computer hardware components such as drives, graphic cards, and video cards, which were often subject to failure, repair, and replacement, are not major factors. With these components centralized into a virtual environment, there are fewer pieces to potentially break or fail.

Bryan Valley, Assistant Director of Information Systems and Technology, explains, “The cost for VDI is a $100 annual connection fee and a one-time purchase cost for the VDI device, which typically ranges around $350-$450. As infrastructure is upgraded, users will experience the upgrades and performance benefits without having to purchase additional hardware.” In terms of security, our VDI system processes data using three major themes: security, resilience, and replication. Data is not sitting in a user’s office, but instead in an enterprise solution in the data center—the safest place for data on campus. Immediately upon saving, the data becomes replicated, so documents are backed up.

By the end of 2016, WSU Spokane distributed 100 VDI units throughout campus in classrooms, library workstations, and the computer lab, using Windows 10. Beta testing for individual users began in November.

In the future, VDI will also allow ITS to run a virtual applications lab. This will be especially beneficial to our students as well as campus faculty and researchers. The greatest benefit of this service will be fewer storage requirements. Users will log into their applications via a URL. The look and feel will be the same as running the application from their own computer, but without having to install it. ITS anticipates the release of virtual applications by March 2017. For now, VDI is providing new unparalleled benefits to users by offering a highly flexible, economical, and much more secure desktop delivery model.
This year, the Systems Infrastructure team introduced Pounce—a cloud storage solution with the university security requirements and the specialized needs of our campus community in mind. Hosted at WSU Spokane by ITS, all Pounce files are stored securely and backed-up in our campus data center. This means our staff are continually providing support in terms of security, maintenance, troubleshooting, and user training sessions.

The Pounce user interface provides options for accessing, synchronizing, and sharing files from any location, from any device. After connecting and uploading documents, every file generates a link to share with colleagues. Following these links will allow users to view or download documents and offers an option for web editing.

Pounce also provides secure audit logs and paper trails to meet federal requirements, specifically satisfying FERPA and HIPPA guidelines and policies. All documents are saved, replicated, and encrypted to ensure privacy, security, and functionality, which is crucial for a health sciences campus.

WSU Spokane faculty, staff, and researchers each receive an initial 10 GB allotment at no cost with the ability to purchase additional space as needed. As the campus continues to grow, the scalability of Pounce will allow us to adapt this tool to meet increased demands and sustain that growth.
This year the University added Skype for Business to the list of services offered to our faculty and staff, replacing MeetingPlace, the Cisco phone bridge tool. Skype for Business allows users to attend meetings from the convenience of their desktops or mobile devices while connecting through a simple user interface. Users can connect for an ad hoc meeting directly from the Skype for Business app or schedule a future meeting by using the Outlook calendar. Unlike MeetingPlace, Skype for Business does much more than just phone conferencing—it is a web conferencing tool that has a phone bridge feature in addition to instant messaging. Meetings can include audio, video, and/or sharing of presentations, documents, or other content.

To ensure a sound transition from MeetingPlace to Skype for Business, we created an implementation and training plan. This plan included reaching out to the campus community and surveying their thoughts and opinions about MeetingPlace in comparison to Skype for Business, beta-testing on our Virtual Desktop Infrastructure, and offering training sessions preceding and following the Skype for Business release. The transition to Skype for Business has been well received by those who had been regular users of MeetingPlace.

Additionally, the desktop sharing feature of Skype has been a useful tool when technical issues arise during meetings. Using this feature, a technician can provide virtual support to get problems resolved quickly, allowing users to continue their meetings and effectively collaborate with colleagues.
In 2016, our Network team deployed a new guest wireless login portal and guest wireless on-boarding workflow to provide a user-friendly experience while providing for greater network security. The old guest wireless system required the WSU Spokane host to submit a request on behalf of the guest in order to receive their wireless credentials. This was cumbersome for our guests as well as our campus community.

As a response, the entire guest wireless process has been simplified. Guests can now connect to the Campus Visitor Wi-Fi through a simple process where they self-identify, accept our terms of use, and immediately receive credentials on their own. This new process has been received with much satisfaction.
Collaborate.

Grow and develop partnerships and alliances to advance campus initiatives.
In recent years, the Eastern Washington region has been searching for a solution to a critical shortage of primary care medical residency positions in Spokane and outlying rural areas. This shortage has left the region without important residency slots, which in the future could cripple progress in the regional medical community. As a response, Providence Health Care, Empire Health Foundation, and Washington State University Spokane formed the Spokane Teaching Health Center (STHC). This partnership leverages institutional expertise to improve access to health care in the Inland Northwest and increases the number of medical residents while aggregating many of them into one facility—the Spokane Teaching Health Clinic.

The clinic capital building project, completed in 2016, benefits from key technology infrastructure designed and installed by the WSU Spokane ITS Network Engineering and Audiovisual Engineering teams.

Networking Excellence

The Network Engineering team has designed the STHC to be the first building to deploy an advanced wireless infrastructure using Aruba’s wireless technology, with the intent to roll out this technology to the entire campus over the next few years. The predicted benefits are expected to vastly improve the wireless experience for the campus community. An immediate benefit of the new wireless infrastructure results from access to certain resources based on the user’s identity and credentials. This will be particularly important in maintaining HIPPA and FERPA privacy standards on the WSU Spokane health sciences campus. The second advantage will be mobility, as the user moves about campus. The current wireless infrastructure sometimes requires a manual reconnect as users roam from building to building. The migration to Aruba will ensure a frictionless wireless experience throughout the campus along with improved speeds and signals.
Audiovisual Advancements

In August, our Audiovisual team concluded their contributions to the STHC project. The result was two technology-enabled classrooms to facilitate a learning experience that connects classrooms with local hospitals. The first classroom has a single auto-tracking camera designed for meetings and discussions. This functions to allow better videoconferencing capability and improved usage of Blackboard and Panopto for recording and lecture capture. This room also includes a large interactive touch display—allowing the students to learn material in a way that is more tailored to new learning models. As noted by Daren Noe, Audiovisual Engineering Manager, “Interactive displays allow instructors to move out from behind the lectern and work right at the display, while emphasizing and highlighting key information or illustrating how organs interact within the human body in health sciences classes. This technology makes classroom sessions more engaging to students.” The second classroom is a traditional 2-camera videoconferencing space with a lectern.

While the students and residents are pursuing their aspirations to become medical professionals, WSU Spokane ITS is committed to providing them with a world-class teaching and learning environment.
E.Flo MD Combines Classroom Knowledge with Real World Experience

A health sciences campus needs to provide IT resources to its students so they may have an exceptional learning experience—one that enables them to interact with established medical professionals and patients in a way that combines their classroom knowledge with real-world experience. To give our students a learning tool that matches their curriculum, WSU Spokane is introducing E.Flo MD—an open source, consortium-based platform that many established medical centers and schools of medicine use to improve productivity, manage workflows, secure documentation, and more.

At WSU Spokane, the Elson S. Floyd College of Medicine (ESFCOM) will use E.Flo MD as a tool to match and map current curriculum and learning objectives to students’ future careers, in addition to supporting curriculum reporting to the Association of American Medical Colleges. This learning management system will promote a competency-based education—allowing students to keep track of evaluations and assessments, in addition to creating an e-portfolio.

ESFCOM is now an active member of the consortium development team—allowing them to identify aspects of the software that don’t work out of the box quite as preferred, to
collaborate with other users to define a path forward, to modify the source code, and to merge their changes into the platform. This ultimately provides a more sustainable approach than either a) depending on a vendor for features that may never be implemented or b) making so many local changes to the software that staying up-to-date becomes a significant burden. It is hoped the effort of engaging in the platform development is outweighed in the long run by advancing an easy-to-use learning management tool tailored to the specific needs of the medical school.

According to Sean Girard, Senior Web Developer with ESFCOM, “The open nature of the software, and the recent efforts by the consortium to move toward a service oriented architecture, also allows us to leverage the platform in areas beyond student learning. We are currently in the process of moving much of our faculty development workshops, content, scheduling, and accountability into E.Flo MD. We are also building a staff and faculty portal which has a tight integration with E.Flo MD.” Additionally, there is a community concept built into the platform. As more is learned about how students and faculty would like to engage outside the classroom, there will be additional opportunities to use E.Flo MD for their benefit.
Administrative systems, lesson plans, and learning models are all prone to change. Having a versatile and customizable content management system is vital to accommodate those changes. SharePoint is the ideal platform, providing adaptable solutions to a variety of tasks across campus, including document collaboration, newsfeeds, asset tracking, and workflows requiring an approval process. While SharePoint was originally used to store and manage documents, with some creative thinking, WSU Spokane ITS has helped it become a far greater resource for many colleges and departments on campus.

The Nutrition and Exercise Physiology program is using SharePoint to interact with their clients through online forms. This has allowed them to improve time management, productivity, and help protect client information. The College of Nursing has begun to use SharePoint as an intranet for document sharing and collaboration, internal communications, and employee training. This switch has led to a decrease in printing costs and also decreased their carbon footprint.

The Elson S. Floyd College of Medicine (ESFCOM) will be using SharePoint extensively and they have hired a SharePoint Administrator to help the college develop the workflow needed for their operations. SharePoint will be an especially helpful tool to ESFCOM as they welcome their first
year medical students in fall 2017. Christopher Barton, the SharePoint Administrator for the ESFCOM gave the following statement:

“SharePoint is an extremely powerful tool and we are just scratching the surface. At this time, it is pulling double duty for us as a data storage space and an intranet. On one hand, it is one of the primary arms of our data storage and collaboration plan for the college. As an intranet, we have devoted space to individuals and departments alike. Our tech incubator uses SharePoint to share progress on his projects. Our IT department uses it as a way to track projects, problems, and share information with the rest of the college. As a collaborative space, we are using SharePoint for curriculum development. In addition, it serves as a shared space for our accreditation and policy development as well as tracking work with our standing committees. As the Admin, a few of my future goals is to leverage SharePoint to manage projects, initiatives, and workflows.”

As SharePoint grows in popularity among colleges and departments on campus, we envision cross-departmental collaboration and sharing of resources. Business processes and forms that can be moved to SharePoint include purchasing, training, document approval, asset tracking, leave requests, automated forms and processes, and optimization.
Audiovisual Advancements Across Campus

Video quality, clarity of details, and color accuracy are critical when using audiovisual technology for health sciences learning. Audiovisual technology is one of many resources our students and faculty utilize, in the forms of presentations, lectures, simulations, and videoconferencing. These resources are also utilized by campus administrators and staff members for meetings and events. Leading-edge audiovisual resources are important aspects for all areas of campus videoconferencing and education needs.

One of our many goals at WSU Spokane is to encourage a collaborative learning environment by designing classrooms with high quality and innovative audiovisual tools and technology. In 2016, our Audiovisual Engineering team completed upgrades of several videoconferencing classroom systems on campus to digital high definition (HD) systems. They also evaluated and installed new classroom technology that facilitates active learning pedagogies. Active learning is a teaching methodology in which students view lectures prior to class. Then classroom time is spent interactively working together to apply the newly learned concepts. The instructor becomes a facilitator as students engage in cooperative, problem-based learning activities. The use of case methods and simulations are some approaches that promote active learning. Based on the
feedback received from our faculty and students, we envision more instructors will plan to engage in this pedagogy, requiring redesign and remodeling of additional classrooms.

In August, classrooms 203 and 205 in the Nursing building received upgrades to digital HD models as part of our classroom upgrade initiative. Also included in this initiative was room 41 in the Spokane Academic Center (SAC). Additional spaces that received HD upgrades included conference rooms in the Health Sciences building (room 220P), the Nursing building (rooms 119, 220, and 420), and the Spokane Center for Clinical Research and Simulation building (room 222).

Next year, we look forward to upgrading SAC 241 with collaborative digital HD technology. As we move to upgrade classrooms across campus, we are working to create active learning-friendly environments by using collaborative, moveable seating arrangements in large spaces, along with the technology that allows students to create and present in small groups. The process of upgrading is planned to continue in 2017 and beyond as we respond to the needs of our faculty and students by designing innovative spaces for immersive learning.
High-Speed Research Network Connection

Jason Minton and Dan Laughlin, from the ITS Network Engineering team, are actively engaged in the re-architecture and planning of the high-speed research network connection. They have been working collaboratively with Richard Eisenman and other wide-area network engineers from the WSU Pullman campus to provide a private, encrypted, secure link which will eventually span from WSU Spokane to WSU Pullman. This connection will provide the capability to send data between the two campuses, enabling researchers to use research computing resources on both campuses. If valuable resources at one WSU campus are busy, researchers can send their data over the high-speed research network connection to be processed and analyzed on the other campus.

Additionally, this connection will have the ability to handle the transmission of large data sets. Researchers who utilize high performance computing clusters will have a powerful mechanism to share their data with and get feedback from colleagues on both campuses. Conclusion of the high-speed research network connection is projected to be March 2017.
Conserve.

Champion environmentally responsible use of technology.
As one of many IT security initiatives at WSU Spokane during the year, our Systems Infrastructure team completed a server migration. When asked about the project, Bryan Valley, Assistant Director of Information Systems and Technologies, said “To strengthen our security posture and to protect the institutional resources and data, we have been moving all of those resources behind a new, next-generation firewall. We have been doing it live—while those servers are in use—to minimize downtime and disruption to campus business activities. And it has been one of the most daunting and fun challenges of 2016.” Server migration can be problematic, hence, the majority of the work was completed over holiday breaks and outside of normal business hours. Approximately one hundred and fifty servers were migrated.

The heightened security behind server migration is attributed to the internal segmentation of services. For example, services that are exclusive to building automation exist in a building automation zone, while critical institutional data has its own zone. Data in one zone does not crossover to another zone, unless network communication has been explicitly allowed. With this strategy, if a zone is compromised, the attack will be contained to that zone only and ITS can quickly target and extinguish the threat. All other zones will be unaffected. The migration of servers and network segmentation has provided an increase in security from internal threats as well as external threats.

Cyber security is a very complex and dynamically changing area of technology. We are continually improving our IT security strategies to create a robust security environment at WSU Spokane while shifting priorities to effectively defend against a proliferation of risks and threats.
Virtualization Saves Energy and Money

In an effort to minimize our energy and space footprint and improve efficiency and performance, WSU Spokane ITS is virtualizing many of the systems and servers on campus. Virtualization creates several virtual versions of computer hardware platforms, storage devices, and computer network resources on one device. This initiative is a top priority for our Systems Infrastructure team.

During 2015, the team virtualized about 50% of our systems as a way to save space, time, money, and resources. In 2016, we were able to meet our goal to virtualize 80% of our data center systems. Building automation systems received special consideration this year. These systems include HVAC, access control, surveillance, security, and power management. Extra attention was required to virtualize these systems because they are so complex. They depend on power control meters, sensors, external sensors, and controllers.

Several other systems have been virtualized this year, and we have been successful in providing a seamless experience to the users of those systems. We also virtualized our entire backend database environment and moved it into a high-availability space. This has allowed room to grow our virtualized systems into the future and has improved reliability, resiliency, and availability for campus services. This specifically affects services like SharePoint, general web services, and core infrastructure services, providing the control our teams need to monitor systems for security and outage prevention. The virtualization of these internal services helps us maintain a 24/7 availability for the campus.

Virtualizing also saves the University money. Each server that is not virtualized costs an average of $700 per year in raw power alone, not including the hardware, maintenance, and operational costs. To illustrate the impact campus-wide, let us assume there are twelve servers used for building automation. That would mean a savings of approximately $8,400 in the data center.

Conserving is one of WSU Spokane ITS’s strategic goals, and virtualization is one of the many methods we are taking to reduce our carbon footprint. Our Systems Infrastructure team continues to look for additional opportunities to virtualize systems as they become feasible.
Conservation Takes Many Forms

Energy Savings Summary

Based upon server infrastructure virtualization and power management tools, our conservation efforts have resulted in the equivalent environmental impacts and cost savings illustrated below.

- 159,848 Pounds of CO₂ Savings
- 159,862 kWh of Energy Savings
- $15,986.23 Cost Savings
- 125,304 Gallons of Fuel Savings
- 2,285 Tree Carbon Sequestration
- 17 Cars off the Road
To improve the experience of our campus community, we understand the importance of transparency in all that we do, especially when it affects the IT services that are used on a day-to-day basis. All major changes must be approved by the Change Advisory Board, consisting of representatives from all campus colleges and departments.

In the past year, ITS published the IT approved maintenance schedule to our SharePoint site and provided an RSS feed so the campus community will know when maintenance will be conducted, who will be impacted, and what services will be affected.

Customers may subscribe to the RSS feed if they are interested in receiving email alerts about the scheduled changes. Most scheduled maintenance will be done before 8 am or after 5 pm, so subscribing to the RSS feed is especially helpful to our campus researchers, who often work outside of standard business hours.

Emergency and routine maintenance that does not affect the day-to-day operations is usually expedited by approval of the Change Manager.
Cultivate.

Promote a world-class teaching and learning environment.
As WSU Spokane grows as a health sciences campus, the need also grows for our researchers to conduct large-scale computations and data analyses to help yield important discoveries. To keep pace with this growth, the University received funding from the National Science Foundation (NSF) for the campus to acquire a small high performance computing cluster (HPCC). This extensive project began in late 2015 with planning and equipment procurement to provide the storage and computing power necessary to support world-class research. Installation was completed by our Systems Infrastructure team this past spring.

The equipment deployment was followed by a beta testing phase and the formation of the Research Computing Advisory Committee to guide the HPCC implementation plan and policies, with representation from ITS and each of the colleges and research labs on campus. The decisions related to access, operations guidelines, and use policies are expected to be formalized in summer 2017.

Open source software is used in conjunction with the HPCC to convert complex raw data into decipherable data which can be used to interpret the results and reach scientific conclusions. This effort is supported by Danilo da Silva, from the Systems Infrastructure team, who has held a key role in keeping the software up-to-date and in making modifications to suit the specialized needs of each researcher. ITS actively works with researchers to ensure all technological needs are met. In addition to troubleshooting software and scripts, our staff advises users on new technologies, software selection, and budgetary needs for new proposals.
In addition to the many research labs on campus, the HPCC is used by the WSU Spokane Genomics Core, a high-volume user of the HPCC for DNA/RNA sequencing and data analysis. The HPCC is integral to the Core’s provisioning of services. In addition to campus researchers, external customers of the Genomics Core include the Pacific Northwest National Laboratory (PNNL), as well as scientists from UCLA, Montana State University, and Cambridge University.

The HPCC expansion project provides the performance and scalability to support the increased volume of campus research. Combined with the recent improvements to network security, capacity, and speed, we anticipate researchers will have the technological edge to acquire funding to support their important work for years to come.

“The HPCC at the Core is going to assist the health sciences research community. The intent is to provide a quality computing research environment for that group and other research labs.”

-Bryan Valley, Assistant Director of Information Systems and Technology
As part of our Lean IT initiative, WSU Spokane ITS has enabled our customers to make desktop and laptop computer purchases via an e-commerce site. All products featured on the site have been pre-approved and certified by ITS to meet our standards for quality, reliability, and warranty. The site allows end users to purchase ITS approved products independently, making the process more convenient and efficient. Administrators and accounting staff also have greater visibility for their college or department purchases. Customers have the ability to select standard configurations or to customize to meet their specific needs. Equipment is shipped to the Technical Support Center (TSC) for additional configuration and installation, then delivered to our customers. TSC staff will also continue to provide consultation and recommendations for all customer technology needs.
Care.

Create a first-rate, customer-focused culture.
ITS strategically develops training sessions and resources for our faculty and staff to help them utilize technology effectively. During 2016, our Education Technology team and Technical Support Center have offered training sessions to a variety of audiences—from offering a summer training workshop to hosting a technology expo, our team has made it their mission to give our faculty and staff the resources they need for success.

Our most requested training session has been Blackboard, WSU’s learning management system, encompassing 70% of all customer requests for training. Each semester, Erik Blackerby, Education Technology Specialist, hosted three different training sessions for Blackboard: Getting Started; Grade Center; and Assessment and Collaboration. Panopto, a lecture capture system, was the next most requested training topic, with 25% of total customer requests for training. Multimedia Services Coordinator, Karla Ealy-Marroquin, hosted Panopto Basics and Classroom Technology Orientation each semester.

In August 2016, the Education Technology team instituted a summer workshop on active learning technology, which we hope will be an annual event. Nearly 60 faculty members
attended this workshop. According to ITS Assistant Director, Angela Earley, “This was a monumental success because many faculty are not compensated for summer session. These faculty members chose our training session during their own time, and that means a lot to us.” Presentations at the workshop included using quiz apps, smart boards, Blackboard Learn, Blackboard Ultra-Web conferencing software, and accessibility.

Following the workshop, ITS organized and presented the first Tech Expo on campus to highlight many of the technological resources available to the campus community. Showcasing their technologies were representatives from Spokane ITS, the WSU Pullman Technology Test Kitchen, Nursing Simulation Technology, Nursing Media Production, the ITS Print Shop, and the WSU Spokane Library. Apple, Microsoft, Eastern Washington University, the WSU Connections Store, WSUS Student Affairs, WSUS Communications, and ASWSU also were present to share information and highlight accessible technologies. Approximately 150 students, faculty, and staff attended the event.

Rounding out the year, two important training sessions were offered to faculty and staff by the Technical Support Center, along with training guides, to support new office tools: Skype for Business and OneDrive/Office 365 ProPlus. As we move into 2017, ITS will continue to offer similar training forums and workshops to educate our campus community on new and innovative technologies, in addition to current technologies.
This past year, WSU Spokane ITS began participating in a joint effort with other campus departments, in collaboration with Student Affairs, to assess the physical, technical, curricular, co-curricular and other potential campus barriers as they relate to people with disabilities.

Representing WSU Spokane as our campus Accessible IT Coordinators are Karla Ealy-Marroquin, from the ITS Education Technology team, and Natalie Grosser, Technical Coordinator, from Student Affairs. They have been leading the efforts of the WSU Spokane IT Accessibility team to review campus information technology accessibility and are working with other WSU campus coordinators to meet the guidelines for Policy 188.

Policy 188, set forth by the Washington State Office of the CIO, is a multi-inclusive set of guidelines for state agencies, including educational institutions. This policy sets forth several guidelines to ensure that all disabled individuals who access and use information and data have equal opportunity to participate in, and enjoy the benefits of services, programs, or activities provided by state institutions. Essentially, each person will get the best possible chance for a quality education and work environment that is comprehensive of his or her unique needs.

WSU is working to address three key items within the policy prior to March 31, 2017. First, the campus must designate one or more information technology accessibility coordinator(s) – WSU Spokane named Karla Ealy-Marroquin and Natalie Grosser as our coordinators. Next, the campus must create a webpage that contains accessibility information and contact information for the coordinator(s) – in progress. Third, the campus must post a list of the software used on campus, which includes special needs accessibility software, on their accessibility website – in progress. The WSU Spokane Accessible IT Coordinators are members of the University-wide team, working together in a united effort to meet these guidelines.

Moving forward, the campus accessibility coordinators will work collaboratively with ITS and other departments and colleges on campus to ensure the technological resources are provisioned to promote an inclusive learning and working environment at WSU Spokane.
Campus Room Directory Alleviates Confusion Over Room Technology

The WSU Spokane ITS Classroom Support Services team, Education Technology team, and Audiovisual Engineering team focus on ensuring that the technology used in classrooms, conference rooms, and event spaces runs smoothly. They regularly assist faculty, presenters, and students in a variety of ways, which often means finding creative solutions to problems minutes before the start of a lecture or presentation. To assist our customers in planning their event, Karla-Ealy Marroquin, from the Education Technology team, has created a campus room directory which is accessible from our website at spokane.wsu.edu/its/campus-room-directory/.

This directory provides a comprehensive list of features for each space on campus that can be scheduled for use, along with a photo gallery to show the seating configuration, podium setup, and audiovisual and videoconferencing equipment available. Having this information before scheduling a space will enable our customers to select the best room to meet their needs.
Our IT Liaison Team
Facilitating Communication and Cooperation

Members from our leadership team have been assigned as liaisons for campus colleges and/or departments as detailed below. If you have questions about our IT Liaison program, or are interested in dedicating an IT Liaison to your college or department, please contact our Campus CIO, Saleh Elgiadi, at elgiadi@wsu.edu or 509-324-7316.

Angela Earley
(509) 358-7971
earley@wsu.edu
- Administration
- Chancellor’s Office
- Capital Planning and Development
- Communication and Public Affairs
- Facilities Operations
- Finance Office
- Human Resource Services
- Office of Research
- College of Pharmacy
- Pharmacoheraphy
- Speech and Hearing Sciences
- Student Affairs
- Nutrition Exercise and Physiology
- Small Business Development Center

Bryan Valley
(509) 358-7688
bryan.valley@wsu.edu
- Library
- CAFRU (Child and Family Research Unit)
- College of Medicine
- Sleep and Performance Research Center
- Medical Sciences
- Veterinary Medicine
- College of Nursing
- Health Policy and Administration

Daren Noe
(509) 358-7922
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- Criminal Justice
- MESA
- Education

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- Institute for Shock Physics and Applied Sciences Lab
Our ITS Team
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The Annual Report Team wishes to acknowledge the WSU Spokane campus photographer, Cori Medeiros, for going above and beyond to capture the various ways that technology is used on campus. Her talent for photography helps us tell our story in a much more interesting way. Thank you, Cori!