

# 2019 / ANNUAL REPORT

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Information Technology Services

WASHINGTON STATE UNIVERSITY



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# WSU STRATEGIC PLAN AND GOALS

## ITS Strategic Plan and Goal Support



### WSU THEME 01:

#### **Exceptional Research Innovation, and Creativity**

**ITS Goals:** Collaborate across WSU campuses to create a shareable High Performance Computing Environment, restructure WSU's fiber networks for greater access, capacity, and strength.



### WSU THEME 2:

#### **Transformative Student Experience**

**ITS Goals:** Enhancements for WSU's Learning Management System, and myWSU; ensure optimum student access in WSU's residence halls; deploy student success collaborative platform focusing on increased retention and graduation rates.



### WSU THEME 3:

#### **Outreach and Engagement**

**ITS Goals:** Collaborate across WSU campuses to provide shareable services: establish strong communication presence across WSU through organizational transparency and strong customer focus.



### WSU THEME 4:

#### **Institutional Effectiveness: Diversity, Integrity, and Openess**

**ITS Goals:** Collaborate with administrative WSU units to modernize HR/Payroll/Finance systems, implement Payment Card Industry (PCI) compliant networks and processes, centralize and upgrade imaging system, transition existing email and calendaring.





## LETTER FROM THE CIO

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**Sasi K. Pillay, Ph.D.**

Vice President & Chief Information Officer  
Information Technology Services  
Washington State University

It was another stellar year for Information Technology Services (ITS) in serving this community of students, faculty and staff. We continued to focus on WSU's four strategic themes and the Drive to 25 as ITS continued laying the foundation of infrastructures offering us the ability to continue expanding positive experiences for WSU's students, faculty, and staff. This report outlines just a few of the exciting accomplishments that our hardworking staff made in fiscal year 2019, working collaboratively with all of you, the community and family that is WSU.

Access and connectivity are key elements in providing services. To this end, we completely revamped our guest wireless network and deployed Eduroam so that it is easy to use and is truly self-service. Whether it is a visiting parent or a collaborator from another institution, ITS made access easy.

Interconnecting all of WSU locations was a glimmer of hope a few years ago. This past year, we began our march toward interconnecting not only all campuses, but also Extension locations and Development Centers, giving rise to CougarNet. We connected Prosser, Mt. Vernon, Puyallup and Kitsap locations to the rapidly emerging WSU intranet. When complete, CougarNet will reach every location of WSU, assuring WSU's services are accessible to every citizen of every county in the state, eliminating redundant effort and reducing costs. So far, this has resulted in savings of over \$100K per year.

The core network backbone on the Pullman campus was upgraded to 100 gigabit per second. This will also serve the university community well as we embark on providing more services that will consume this bandwidth.

Working closely with AOI, the entire videoconferencing capability has been migrated to a modern, easy to use platform called Zoom, hosted in the cloud. With this capability, we now have a single platform to host both academic and administrative video conferencing. This eliminated the need to upgrade the aging infrastructure and resulted in nearly a million dollars in cost avoidance. Our next focus for this new application is converting conference rooms to full Zoom functionality, thereby improving ease of use.

Covering all three of our tenets for mission enablement, risk reduction, and cost effectiveness ITS deployed Okta, the new

authentication system. This environment allows users to more dynamically manage their WSU network passwords. In the coming months, we will implement Multi-Factor Authentication (MFA) greatly reducing--in fact eliminating--compromised accounts that come about through phishing and other malicious efforts.

We deployed a mobile ecosystem now housing many independent WSU mobile applications, thereby simplifying the burden of individually locating and managing these applications by the user. Always seeking student engagement opportunities, we hosted our first ever student design hackathon. An excellent turnout of students from all academic areas offered design ideas to serve fellow students and the best of those ideas were recognized with prizes and are in consideration for WSU-wide deployment.

ITS now has an integrated process for ordering and service fulfillment of the myriad of ITS-managed services. We also introduced the new service desk model, Crimson Service Desk, this past year. This environment accommodates service requests for not only ITS, but is equipped to support numerous other service organizations such as AOI, Student Affairs and more across the university. It has the potential to become a single service desk for WSU that students, faculty and staff can use to resolve issues, no matter what they are. CougarNet's intranet and connected community is an excellent partner to Crimson Service Desk in meeting needs system-wide as WSU needs continue to grow.





MadHat Participants, March 2019

# COMMUNITY

These are just a few of the accomplishments that we were able to achieve with your support and collaboration. We strived to increase Transparency in our operations, listen with Empathy to your concerns, Collaborate with you to deliver excellent service, and be Honest in everything we do. Together that spells TECH, which is our currency!

As always, we encourage your feedback and please do so by contacting Jacqueline Southwick, ITS Communications Manager, at [Jsouthwick@wsu.edu](mailto:Jsouthwick@wsu.edu).

Go Cougs!

*Sasi Kumar Pillay*

Sasi



WSU students enjoying WSU Wireless



## STOP BY FOR A VISIT: WSU GUEST WI-FI

In early 2019, WSU Pullman completed the migration from a restrictive, aging guest wireless system to an open, self-service resource with the introduction of ClearPass. Initially tested at WSU Spokane, the new service allows users to self-register for Pullman's guest wireless network in a matter of moments directly from their own devices, for the first time in WSU history.

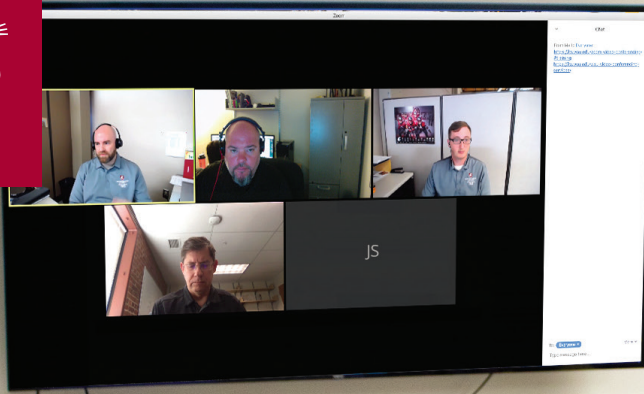
Prior to this change, only users with a registered Friend ID (FID) or those visiting specific locations on campus such as Compton Union's visitor information desk could acquire a temporary guest wireless account. Access could only be obtained through interaction with authorized campus staff. The introduction of

*May and June saw over 9,000 guest account activations, an excellent start to the value and convenience the new service provides.*









*WSU employees in a Zoom meeting*



## FACE TO FACE: ZOOM TELECONFERENCING

Zoom, the new telecommunications tool for WSU, officially rolled out to all university users in early July 2019. This cloud-based software aligns with ITS' missional shift to online software as a service (SaaS), eliminating expensive infrastructure requiring hardware maintenance and higher operational costs. Transitioning to Zoom allows Information Technology Services to focus more resources on Quality of Service (QoS) when engaging with users across the WSU system.

An easy fiscal decision, acquiring Zoom Pro teleconferencing licenses for all current WSU students, staff, and faculty also offers WSU considerable savings in time and employee effort. The prior telecommunication tools created challenges when business

required flexibility. Designed to handle density in scheduling, Zoom removes barriers such as limited licensing or available resources.

In its first month of use, Zoom experienced dramatic user engagement:

- 3,002 unique meetings across more than 30 countries with 13,515 participants conducted over 654,480 minutes.
- 1,392 users offered feedback, with a 97.05% positive satisfaction rate.
- The Zoom Service Team has a 100% satisfaction rate on tickets for supporting users across the university.
- 4,650 registered users.

Bryan Valley, assistant director at WSU Spokane, shared that integrating

this new tool is not only a financially responsible decision, but also “empowers undergraduate and graduate education more than we ever had before. We can say ‘yes’ to a lot more.”

*“Zoom presents an opportunity to modernize our infrastructure in a way that adds new capabilities for faculty, staff, and students while removing restrictions on the types of devices that can participate in video conferencing. We believe these factors will provide an improved videoconferencing experience at Washington State University, both internally and externally,” said David Cillay, vice president for academic outreach and innovation.*

On an academic level, Zoom offers students interactions and experiences beyond the brick and mortar classroom. Faculty will not be limited to engaging only during office hours on campus and students can meet online for group collaboration. Teleconferencing now easily handles the fast-paced environment of the University while providing improved instant messaging functionality, audio and video sharing and recording within the application, and network authentication security.

“Zoom presents an opportunity to modernize our infrastructure in a way that adds new capabilities for faculty, staff, and students while removing restrictions on the types of devices that can participate in video conferencing. We believe these factors will provide an improved videoconferencing experience at Washington State University, both internally and externally,” said David Cillay, vice president for academic outreach and innovation.

Augmenting existing academic and business resources for connecting, sharing ideas, and collaborating across geographic barriers, Zoom allows for the current systems of synchronous communication to move beyond many existing constraints, allowing for asynchronous meetings via recorded meetings and automated transcripts. Christopher Coons, director of educational logistics & technology noted, “This transition provides an opportunity to review and simplify business processes by leveraging the capabilities of a more modern tool.”

Part of the SaaS videoconferencing implementation involves ensuring the software remains effective and useful. Each year ITS will assess the cost, value, and service reliability in addition to evaluating future technologies over a three to five year life cycle.



Zoom meeting via multiple devices



## NO REST: SECURITY DATA

### Malicious actions blocked:

# 49,441,663

events blocked at the border



## 40,642

blocked by Intrusion  
Prevention systems



# 1,048,576

blocked malicious websites

# 1,653,265

blocked malicious messages

# 1,816,449

messages with URL threats



\*Phishing emails sent to WSU email accounts:

## 55,635

Total tickets received  
through [abuse@wsu.edu](mailto:abuse@wsu.edu)

# 239,724

critical network threat events  
identified and blocked









## STUDENTS AND ITS: HACKTOBER, TAKE TWO

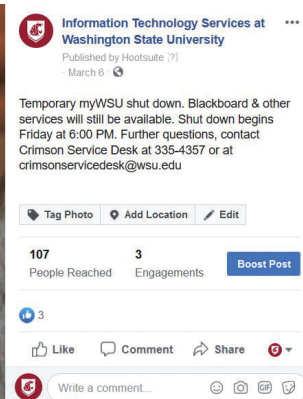
Information Technology's second annual Hacktober Trivia Contest, held in conjunction with October's National Cyber-Security Awareness Month, offered a month-long discussion with students regarding the importance of being #cyberawareCougs. The goal? Reminding students once again of the importance and ease of being more cyber-secure every day. Hacktober always comes with a few perks along the way, and this year's winners received a treasure trove of WSU gear including hats, mugs, blankets, sweatshirts, and two grand prizes of a bucket filled with WSU swag and memorabilia.

Hacktober 2018 combined social media, tabling in Pullman's Compton Union Building, and conversations on the Terrell Mall where ITS Communications student staff invited passersby to answer daily trivia questions. Answers did not need to be correct for individuals to be included in the weekly prize drawings, and hundreds of community members joined the fun.

Growing the ITS social media audience through lighthearted events like Hacktober increases visibility for important technical service notifications and improves awareness regarding important cyber-security issues. The team uses social media and face-to-face conversations to teach students to think about how they engage with their cyber-community. Typical topics include not using public Wi-Fi when accessing personal resources such as banking sites or email, and who to contact at WSU with information security questions or concerns ([abuse@wsu.edu](mailto:abuse@wsu.edu)).

Higher education students world-wide are facing increasing cyber threats and cannot rely solely on passwords or vendor protections. To prevent hackers from obtaining personal information today, students need to be active members in security conversations. ITS is partnering to educate, protect, and support WSU's students, and Hacktober is an important tool in this relationship now and for years to come.





*Student awareness through engagement*





## THE SKY IS THE LIMIT: NEW CLOUD AUTHENTICATION

### OKTA

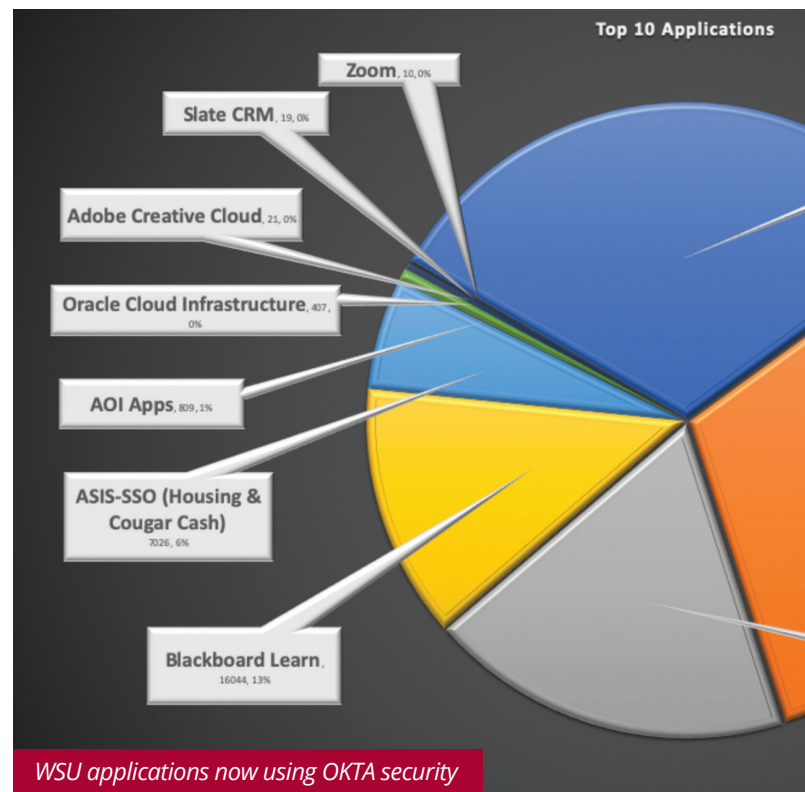
ITS completed the first phase of Okta implementation, an advanced cloud authentication resource, with the migration of more than 53,000 WSU users in spring 2019. This multi-phase project supports WSU's constantly growing information security needs, as well as the multi-million dollar business modernization project expected to roll out to the WSU system in July 2020.

Cloud authentication by industry-leading provider, Okta, delivers a mobile-friendly self-service password reset interface, strong security tools network-wide, and opens the door for further security protections in the coming months. A manual process requiring Crimson Service Desk support prior to this migration, cloud authentication brings self-service password recovery when a user forgets their password by allowing users to set up preferences for security questions, text and phone recovery. Self-service password management, not accessible for many

international students in the past, is also now available to them. Okta's functionality eliminates losing network access on nights and weekends due to a forgotten password and no after-hours technical support. Users no longer need to wait until support is available during normal business hours, but can access recovery information and restore passwords anytime; a practical solution to a critical student support need.

Information security in the higher education community is a growing concern as discussed in the 2019 Stay Safe Online article, "The Adoption of Multi-Factor Authentication in Higher Education, 2018." Many universities worldwide are finding it necessary to incorporate security measures into university culture "in response to phishing incidents, increasing government information security and data protection requirements, and institutional support for improving information security on campuses."

According to Dr. Sasi Pillay, vice president and chief information officer, "Managing information security needs is an essential component of everything we do at WSU. Protecting student and university data is like oxygen, we need clean air to be healthy and accomplish our goals. We need secure resources and processes as well."

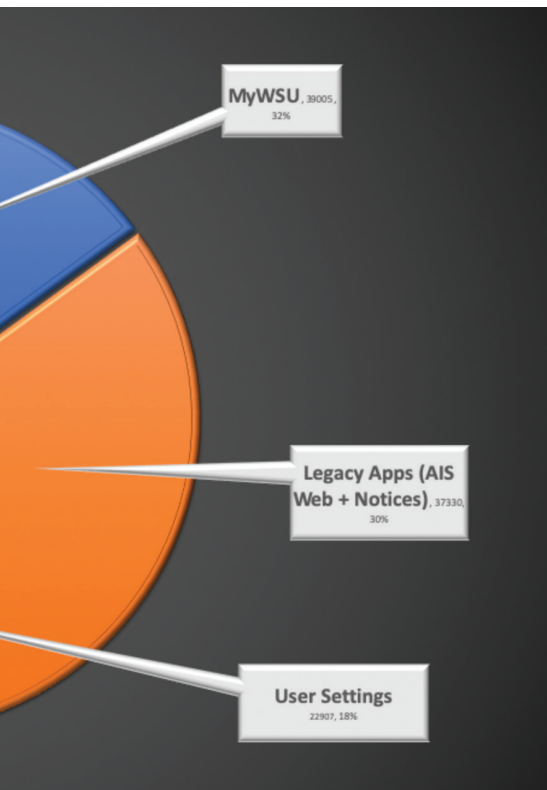


Eighteen WSU applications shifted to requiring the new cloud authentication in order for users to obtain access including myWSU, Blackboard Learn, Cougar Card Self Service, and many Housing and Residence Life resources. More applications continue to come online as ITS

works alongside colleges and business units to understand their unique business needs. Next year's Workday implementation, the business modernization application, will immediately utilize the new authentication protocols upon rollout.

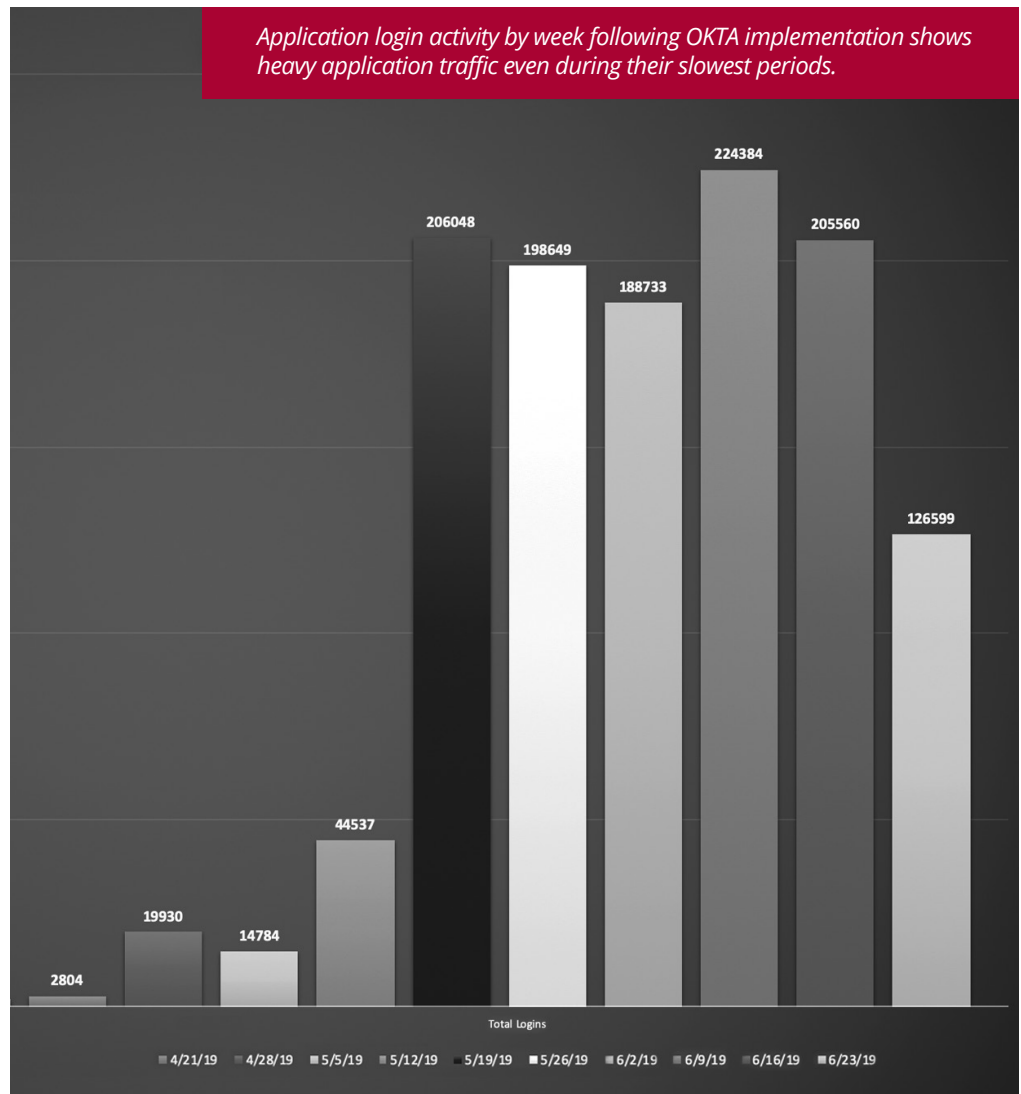
The next phase of cloud authentication scheduled for late 2019 brings multi-factor authentication (MFA) to the WSU community. MFA requires users to integrate additional security steps beyond the traditional password before they are able to access protected accounts and network resources. Allowing students, faculty, and staff to take an active role in protecting personal and university data, one-time codes received via text or phone eliminate a hacker's ability to access student data via a single password security structure.

*"WSU is using some of today's most advanced information security technology to reduce compromised accounts, a top priority across all of higher ed." Dr. Sasi Pillay, VP & CIO*



*"Credential theft is one of the biggest threats we face as an institution. Multi-factor authentication allows WSU to significantly reduce the threat of credential theft," said Tom Ambrosi, ITS assistant vice president and chief security information officer.*

*Application login activity by week following OKTA implementation shows heavy application traffic even during their slowest periods.*



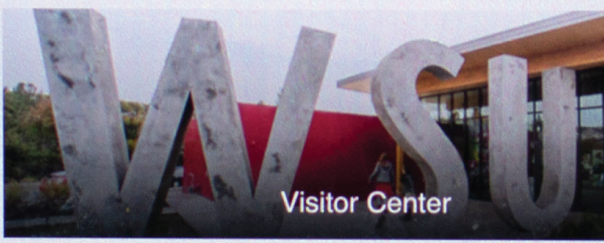




Verizon

12:09 PM

WASHINGTON STATE  
UNIVERSITY



Visitor Center



Home



Arrange



Settings



Alerts





## ONE STOP: WSU MOBILE

The future of mobile student resources arrived at WSU this year when ITS introduced the WSU Mobile eco-system in February. The mobile app, a combined effort by a collaborative advisory board across multiple WSU areas-including Student Affairs and Information Technology Services, provides centralized access to many mobile-friendly WSU resources such as Blackboard, myWSU, GET, transit options, and more.

Vice president and chief information officer, Dr. Sasi Pillay, explained the idea of an app being an eco-system: “WSU’s mobile eco-system allows an individual to simplify identifying and locating necessary mobile applications when they arrive at WSU. An eco-system is a single platform that houses multiple mobile application links, offering individuals the confidence to manage information needs quickly and easily, without confusion. Users are able to focus on the one environment that does all of the work for them.”

With almost 5,000 users accessing the application for close to 45,000 sessions and more than 373,000 page views in its first months of use, developers anticipate broad adoption across

the university and are already evaluating further enhancements. Future development includes possible user customizations, resource prioritization, and other features to make WSU Mobile an invaluable daily tool for all WSU students.

Easily maintained and offering room for growth, the eco-system’s ultimate goal is to offer system-wide resources for WSU students, guests, faculty, and staff across all WSU areas. Building on vital apps such as myWSU and Blackboard in its initial rollout, more departments and offices are joining WSU Mobile all the time.

If your department would like to explore being a part of the new mobile eco-system, reach out to [crimsonservicedesk@wsu.edu](mailto:crimsonservicedesk@wsu.edu) for more information.

*“WSU’s mobile eco-system allows an individual to simplify identifying and locating necessary mobile applications when they arrive at WSU. An eco-system is a single platform that houses multiple mobile application links, offering individuals the confidence to manage information needs quickly and easily, without confusion. They are able to focus on the one environment that does all of the work for them.”*



my.wsu

Blackboard

Navigate Street

# APP DESIGN CHALLENGE



## STUDENTS HELPING STUDENTS THROUGH MOBILE DESIGN: MAD HAT

Information Technology Services partnered with WSU's newest technology-friendly building, the Spark, to host the first ever MAD HAT (Mobile App Design Hack-A-Thon) coding event on Saturday and Sunday, March 23 and 24, 2019. With more than 150 registered student participants, MAD HAT kicked off Saturday morning with Dr. Sasi Pillay, VP & CIO of Information Technology Services, welcoming more than 150 registered student participants.

MAD HAT kicked off with Dr. Pillay welcoming more than 150 registered student participants. "Our intent and goal for having this first ever mobile app hackathon is to provide students with an introduction to WSU's new mobile eco-system, the centralized platform providing a single access

point to multiple WSU apps and websites,” Dr. Sasi Pillay shared, “and give them the opportunity to identify and develop student-generated ideas to add to WSU Mobile.”

Event coordinator and ITS director, Guy Westhoff, organized students into teams based on skill levels and interests, ensuring balanced team structures. Following initial training, students spent Saturday accessing their team's mobile app development environment to storyboard and map out app ideas. Technical support during this process, both onsite and online, included team members from both Information Technology Services and visiting developer Ex Libris' technical team members.

Students designed their mobile apps based on a problem statement and the judging criteria provided in the opening session. The problem statement: identify information or resources helpful to students in the new WSU Mobile eco-system application, and once identified, design that app. The judging criteria for the student designs included audience reach, ease of use, innovation, and need.

The four winning designs are now in the process of further development within the ITS WSU Mobile support team, including preparation to present to

the WSU Mobile governance committee for review and possible inclusion into the WSU Mobile app.

WSU Mobile is currently available free to all students via both the Android and iOS app stores.

*“Our intent and goal for having this first ever mobile app hackathon is to provide students with an introduction to WSU's new mobile eco-system, the centralized platform providing a single access point to multiple WSU apps and websites,” Dr. Sasi Pillay shared, “and give them the opportunity to identify and develop student-generated ideas to add to WSU Mobile.”*

## The four winning student teams include:

### First place winners:

Emily Feay, Connor Rosentrater, Brianna Lawson, Karl Estes, Blake Coulter, and Micah Priddis



### Second place winners:

Angel Castaneda, Tyler Meyer, and Paul Schaffer



### Third place winners:

Troy Kirin, Carlos He He and Christopher Roberts



### Student-choice award winners:

Kellan Mebane and Vikram Singh

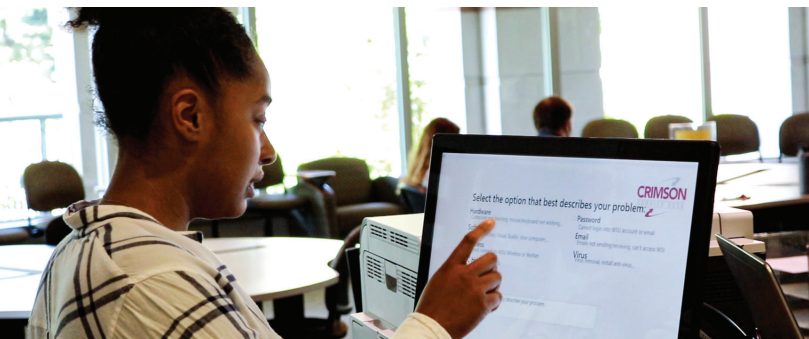






## INNOVATING CHANGE: CRIMSON SERVICE DESK

Crimson Service Desk's (CSD) new structure provides a model for the future of information technology support across WSU. Introduced in spring 2019, the new service desk combines the staff and resources of two long-standing groups, student-facing CougTech and business-facing Enterprise Systems Help Desk, to form a unified support team. By combining the technical support resources of both groups, customers now receive a quality of service (QoS) built on a broader technical and community perspective.



The new self-service information and technology support portal introduced as part of this restructured service team, [crimsonservicedesk.wsu.edu](http://crimsonservicedesk.wsu.edu) incorporates a library of searchable topics. The library utilizes a growing knowledge base currently hosting more than 400 self-help articles publicly accessible 24 hours a day, seven days a week. Offering the ability to submit an electronic support request ticket if an individual does not find the answer they need, users can also check on the status of their tickets by visiting the portal anytime.

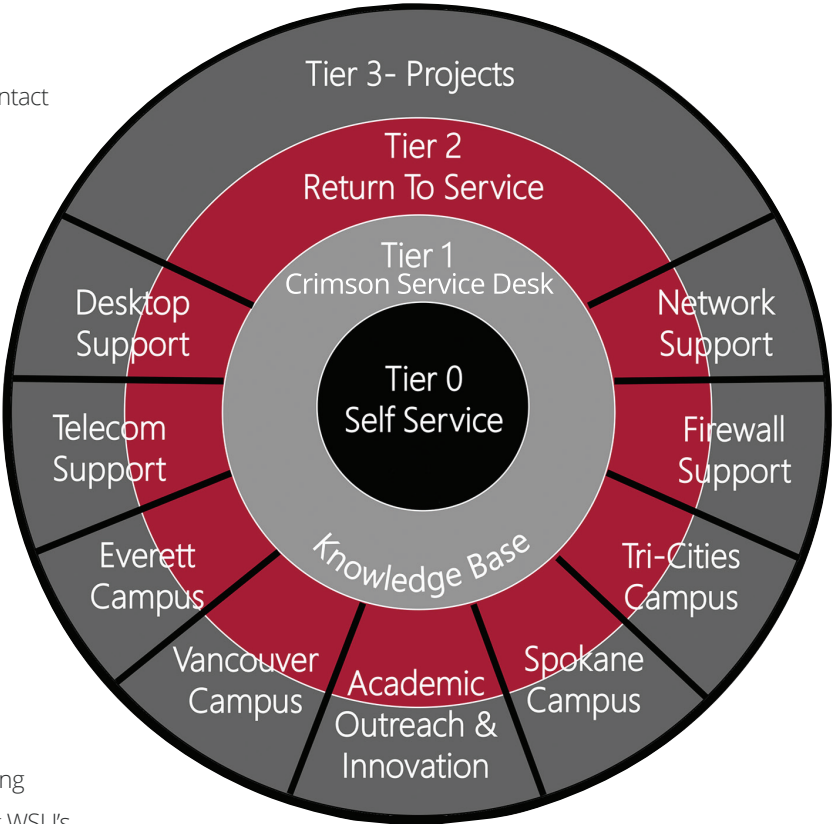
With more than 21,000 requests for assistance, the newly combined team was busy during the final half of FY2019. This total included 6,200 requests by phone and the remainder routing through the new self-service portal, as well as by email requests. Roughly 3,600 customers with more complex support needs received next tier support through the service desk agent working with ITS engineers and experts to identify timely solutions.



"Crimson Service Desk offers technology support through a multi-tiered environment that employs principles of total-contact ownership and other industry-recognized best practices that place customers first," stated Gary Saunders, project specialist for Information Technology Services.

Offering scalability, Crimson Service Desk is poised to grow in response to the needs of the expanding WSU end user community. As a newly formed team, 85% of submitted assistance requests are resolved in four days or less. This is a great start, yet the team is aiming higher. To reduce wait times for assistance through a submitted ticket, Crimson Service Desk plans to grow the knowledge base's self-help resources and portal use, and introduce a self-service Chatbot.

Reducing costs and improving efficiencies, Crimson Service Desk combined separate, existing resources, and the resulting team is more robust and better able to continue supporting WSU's



information technology questions now and for years to come. ITS' long term vision, according to Dr. Sasi Pillay, vice president and chief information officer, is a one stop shop for customers. When a student has a bug, they make one phone call or pull up one resource – Crimson Service Desk. "Ultimately, we are looking at academic support in the grandest vision with the simplest student requirements; making student life easier through better resources."

*"Ultimately, we are looking at academic support in the grandest vision with the simplest student requirements; making student life easier through better resources." Dr. Sasi Pillay*



## SAFE & SECURE: MAINFRAME 2019

For the first time in the life of business data management at WSU, a disaster recovery protocol protects the continuity of numerous mainframe-managed applications and services critical to WSU including payroll, accounting and more.

Thanks to funding support provided by President Kirk Schulz and WSU's vice president and chief information officer, Sasi Pillay, WSU shifted to an IBM mainframe as a service (MaaS) in December 2017 that addressed legacy equipment challenges while providing scalability and flexible financial models to support WSU growth. Day-to-day functions came into line seamlessly in the new environment, allowing WSU to move quickly to the critical next step of developing disaster recovery (DR) protocols essential for information security and data continuity.

*"WSU's migration from on premises to MaaS with a redundant disaster recovery protocol took WSU business data process recovery from several months to a maximum of two days. WSU data has never been as well prepared to recover from a disaster scenario," shared mainframe architect, Dave Gibney.*

The ITS mainframe support team spent the next year constructing protocols that would allow vital redundancy for WSU's business data support via a second IBM MaaS resource. The goal: upon notification of any catastrophic interruption in data flow to its primary virtual mainframe, WSU's business support team shifts to the next virtual mainframe resource.

The final step in the new disaster recovery implementation was actually testing the switchover. The team would need to move business data traffic from the primary MaaS in Nebraska to the backup in Illinois during regular business hours, which always presents risk.

ITS' IBM mainframe expert and WSU's primary mainframe architect, Dave Gibney, worked with the Illinois support team to successfully test the comprehensive disaster recovery strategy, moving





*Michael Echanove*



*Dave Gibney, Brant Schroeder, Jay Maylor*

to the redundant cloud mainframe and then back again to the primary. Gibney, a respected mainframe expert within the IBM programming community, spoke at the May 2019 SHARE conference for mainframe developers following this data migration test.

"WSU's migration from on premises to MaaS with a redundant disaster recovery protocol took WSU business data process recovery from several months to a maximum of two days. WSU data has never been as well prepared to recover from a disaster scenario," shared Gibney.

Michael Echanove, another WSU data architect and member of the mainframe project team, shared that, "All of the data within

WSU's infrastructure, up until the last daily backup, is protected and safe under this new plan." Echanove continued, "The ability to recover mainframe resources to a disaster recovery cloud datacenter is a significant achievement for WSU and reflects the decisions of WSU and ITS leadership to protect and secure mainframe data while moving forward with the upcoming business modernization project."

With data traveling continuously between WSU's business users and the new mainframe as a service, WSU has data infrastructure support beyond anything in its history.



## HOW CAN WE HELP YOU: ITS CUSTOMER CENTER

With this year's successful introduction of ITS Customer Center, clients are easily able to quickly shop and select ITS services and products they need. One of the first customers to build out this functionality in service partner PCR's software, WSU's Information Technology Services invested months exploring network integration, user interface design and order processes to meet a go-live date of July 2019. Now services such as data and phone, equipment and accessories, and self-help options for small items are available via this online

*"The intuitive site easily allows ITS to assess customer needs and get them the right support," Shona Sorensen, ITS manager and project lead offered.*

center, another WSU step toward more robust and less costly cloud business support. "The intuitive site easily allows ITS to assess customer needs and get them the right support," Shona Sorensen, ITS manager and project lead offered. Replacing the decades-old legacy Service Request System (SRS) for processing customer orders, Customer Center



Shona Sorensen

Randy Cross





Lauren Wells, Cindy Johnson, Alex Sakamoto, Ron Lengacher

enhances ITS service and allows for continued expansion in the years to come as more ITS-managed resources continue to join those already offered through the ordering system. The aging legacy system, built in-house during the early life of technology support at WSU, was an innovation in its early

*"Costing ITS and WSU no additional expense to augment existing infrastructure resources," Barnard added, "the addition of Customer Center offers further momentum in our drive to provide timely and people-oriented services for the WSU community."*

years. However, as time passed the aging structure offered little adaptability to support the expanding services list ITS now coordinates for university faculty and staff. Introducing Customer Center immediately reduced staff effort and maintenance costs while improving user experience.

According to Dawn Barnard, assistant vice president for Information Technology Services, "ITS is focused on providing optimum user experience. Customer Center is another great resource that allows us to improve efficiencies and to effectively provide our services to the university community."

"Costing ITS and WSU no additional expense to augment existing infrastructure resources," Barnard added, "the addition of Customer Center offers further momentum in our drive to provide timely and people-oriented services for the WSU community."



Cecil Curran





ITS members Sasi Pillay, and Guy Westhoff



## WELCOME TO THE TEAM: ITS ONBOARDING

Identifying a need and finding a solution: that approach led to ITS employee on-boarding undergoing significant transformation in late 2018. One of the most important aspects of a successful hire, welcoming new employees into a complex technical team requires effective planning and coordination. The new ITS process offers incoming employees and their hiring managers onboarding that is predictable, streamlined and user-friendly. A good onboarding experience is critical to influence a new hire's decision to stay with the organization. (hrexecutive.com)

*A good onboarding experience is critical to influence a new hire's decision to stay with the organization. (hrexecutive.com)*

Weeks of interviews, rows of sticky notes containing each individual hiring task organized and reorganized for effective flow, considering hiring manager needs, focusing on the employee's experience; all of these tasks led to a comprehensive workflow from the offer letter to the fully on-boarded employee, important steps needed before the project could move forward.

Once finished with that milestone, ITS' project team then spent the next months integrating that workflow into the Jira automated project management environment.

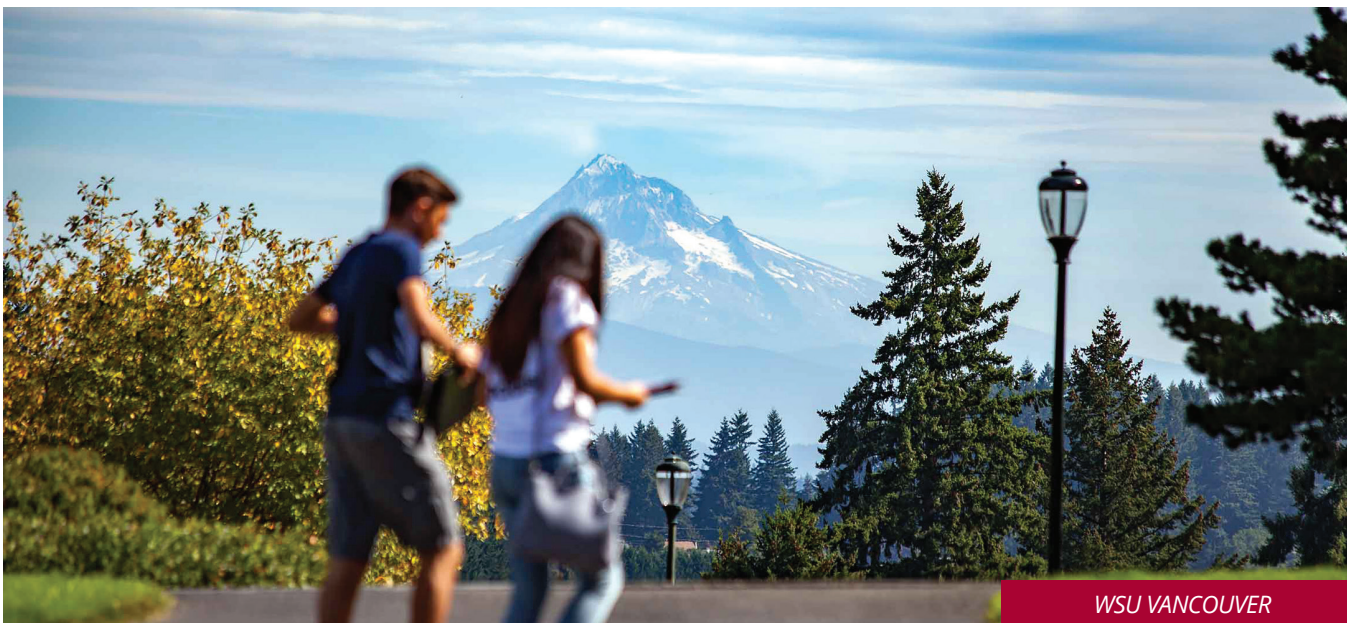
Now, the hiring manager completes a Jira questionnaire generated and emailed to them as part of the hiring confirmation. Customizable for every hire, each item the hiring manager identifies creates a task for the support team responsible for providing that resource. The team built a task structure in Jira where one task's completion triggers the next and notifies owners of each task. From payroll and direct deposit to equipment and department-specific trainings, the onboarding workflow centralizes completion of the recruiting process and ensures a new employee receives the information and resources needed to become a contributing member of their team much more quickly.

Considering the new employee's perspective, user experience (UX) drove the development of a custom welcome web page providing an overview of resources, tasks and what to expect. New employees can schedule orientation trainings and connect with a variety of WSU and ITS resources such as parking, payroll, and other areas prior to beginning their first day of employment.

*"The new on-boarding model offers significant potential for improved personnel efficiencies for ITS and beyond." Dawn Barnard*

Dawn Barnard, ITS assistant vice president and area finance officer, believes onboarding with Jira is a model adaptable for other departments system wide, an opinion confirmed by other area finance officers' inquiries. "The new on-boarding model offers significant potential for improved personnel efficiencies for ITS and beyond." Dawn Barnard

A collaborative project within ITS, the project team continues fine tuning the new process to offer every new employee full on-boarding within a week of their start date, reducing costs and expediting new employee productivity. Next phases for FY20 include transfers and offboarding.







## OPERATIONAL PERSPECTIVE: BY THE NUMBERS

By the numbers, ITS had a great year partnering with customers across the state and around the globe. As tempting as it is to look forward to new projects and new customer needs, these pages allow us to pause for a quick retrospective of operational numbers for fiscal year 2019.

More university customers visited the ITS website for change information as we rolled out several projects including new student resources such as MatLab, and new Okta network authentication offering stronger information security postures. ITS supported more employee hires processed in FY2019, which also means more employees paid. More students came through WSU's doors, translating to more tuition payments, more credit card transactions, and more travel reimbursements for both employees and students through ITS' e-commerce support.



WSU PULLMAN

## ITS.WSU.EDU BY THE NUMBERS

Pages viewed  
**2,067,336**



Total visits  
**569,703**

**425,703** New users







## BUSINESS SUPPORT BY THE NUMBERS

### ACCOUNTS PAYABLE

PAYMENT REQUESTS IN FY 18:

**102,989** for  
**\$816,588,646**

### PAYROLL/HRS

Total WSU payroll contributions on  
behalf of employees for FY 18:

**\$155,126,851**

Employees paid in FY 18:

**18,694**

NUMBER OF NEW HIRES FOR FY 18:

**5,853**

Total gross payroll for FY 18:

**\$525,072,875**



## STUDENT & FAMILY SUPPORT BY THE NUMBERS

### E-COMMERCE

Tuition and housing payments from eCheck

**68,652** for **\$143,214,980**

**36**

Number of  
e-commerce  
merchants

Number of departmental e-commerce transactions

**112,093** for  
**\$11,501,044**

Tuition and housing payments  
from credit cards

**40,956** for  
**\$32,269,932**

Student Direct Deposit Refunds:  
**31,278** for  
**\$88,680,258**

Employee Direct Deposit reimbursements from Accounts Payable:

**17,297** for **\$13,349,210**





## A CONNECTED COMMUNITY: COUGNET

WSU is altering its statewide network architecture from a collection of individually designed and supported locations with independent internet connections to operate as a typical single campus operates. Each location connects to the statewide network much like a person's hands are connected and function as part of the whole body.

CougNet, a project destined to unite WSU's locations across the state through a high-speed network backbone and intranet, evokes a Disney-esque vision of Futureland at WSU: university researchers and students collaborating across the state through high fidelity on-line courses, extension locations enjoying robust connectivity to larger campuses, and powerful cybersecurity with system-wide visibility standing guard over it all. Like Disney, WSU generates rich content and is striving to identify new, innovative means to disseminate that content across our community. CougNet offers that vehicle.

"WSU is a single university geographically dispersed," ITS CIO Sasi Pillay said. With physical campuses in Pullman, Spokane, Vancouver, Tri-Cities, and Everett, and extension or research offices in all 39 Washington counties, working together and staying connected is paramount to achieving the goals of the University.

*"A high-speed network backbone and intranet are instrumental in advancing our ability to support the Drive to 25," Dr. Pillay explained. "This structure supports our mission of teaching and learning and offers WSU credible choices for implementing disaster recovery and continuity of operations in the cloud."*

Beginning with a direct 10G link from Pullman to Spokane in place by the end of calendar year 2019, this project will ultimately provide a 10-gigabit connection for each campus. Remote extension locations will likely start with smaller connectivity speeds, working up to match the 10G speed by the end of the project. Offering not just faster service, but also a fiscal win, WSU is already realizing nearly \$100K savings annually from the locations now added to CougNet.

CougNet also creates an intranet connecting each WSU campus, extension office, and research location. The internal network natively includes continuously monitored, secure connections. High-speed connectivity within the virtual walls of WSU allows campuses to offer their unique capabilities, whether research or classroom oriented, to other campuses. Video conferencing without leaving the internal WSU network improves online course quality. Maintaining a single, redundant intranet significantly lessens the financial burden of maintaining separate internet connections and security across each location, making this a solid fiscal choice for WSU.

"A high-speed network backbone and intranet are instrumental in advancing our ability to support the Drive to 25," Dr. Pillay explained. "This structure supports our mission of teaching and learning and offers WSU credible choices for implementing disaster recovery and continuity of operations in the cloud."





WSU TRI-CITIES



WSU VANCOUVER

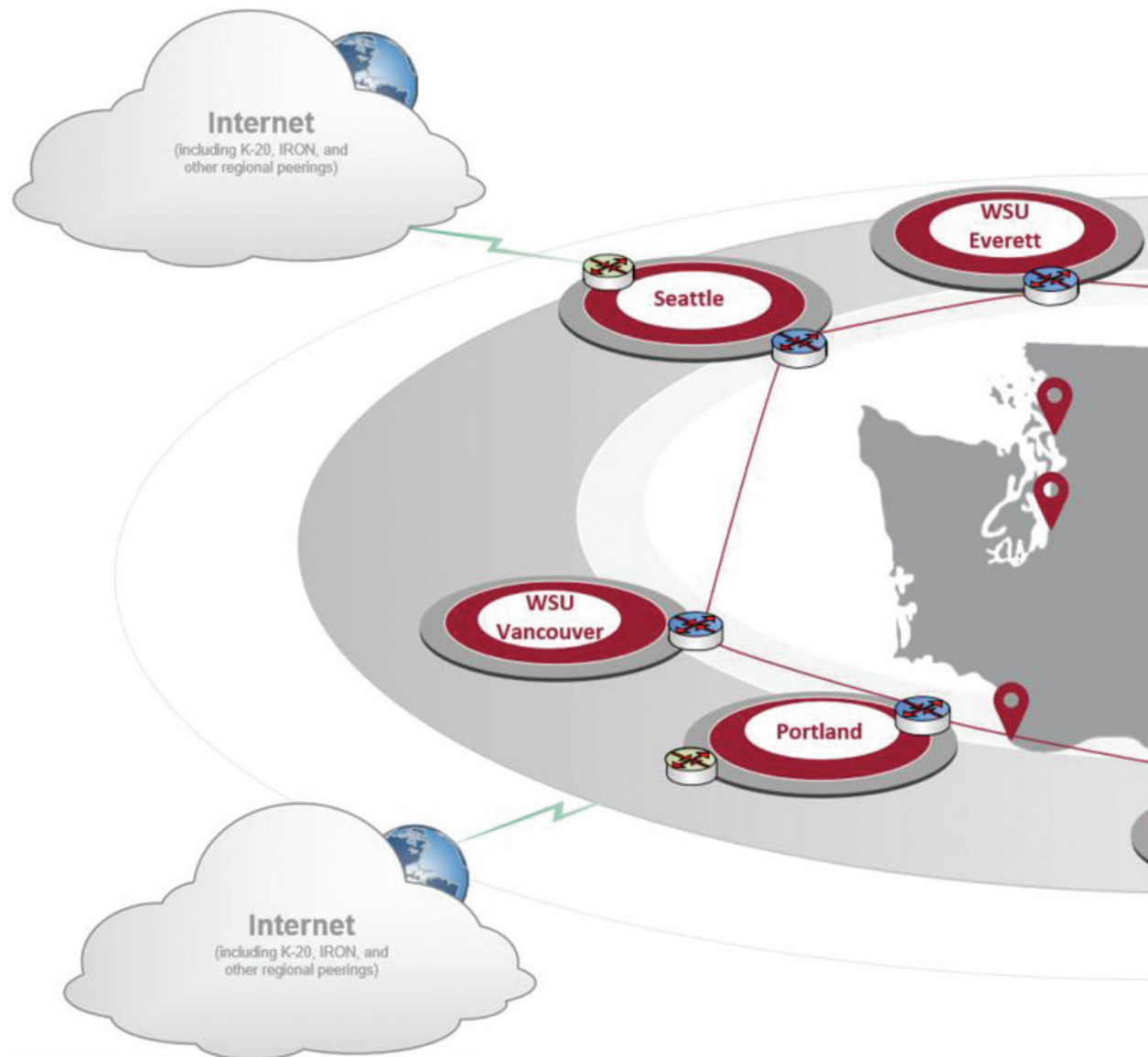
*Richard Eisenman, ITS network and security architect, measures success for CougarNet across two axes. "The first is technical, reviewing hard metrics designed into the system to measure comparative traffic performance and reliability. The second is organizational, looking at how the project has improved our ability to deliver the educational resources our students, faculty, researchers, and staff depend on."*



WSU EVERETT



## VISION FOR COUGNET SHOWING CAMPUS INTERCONNECTIVITY



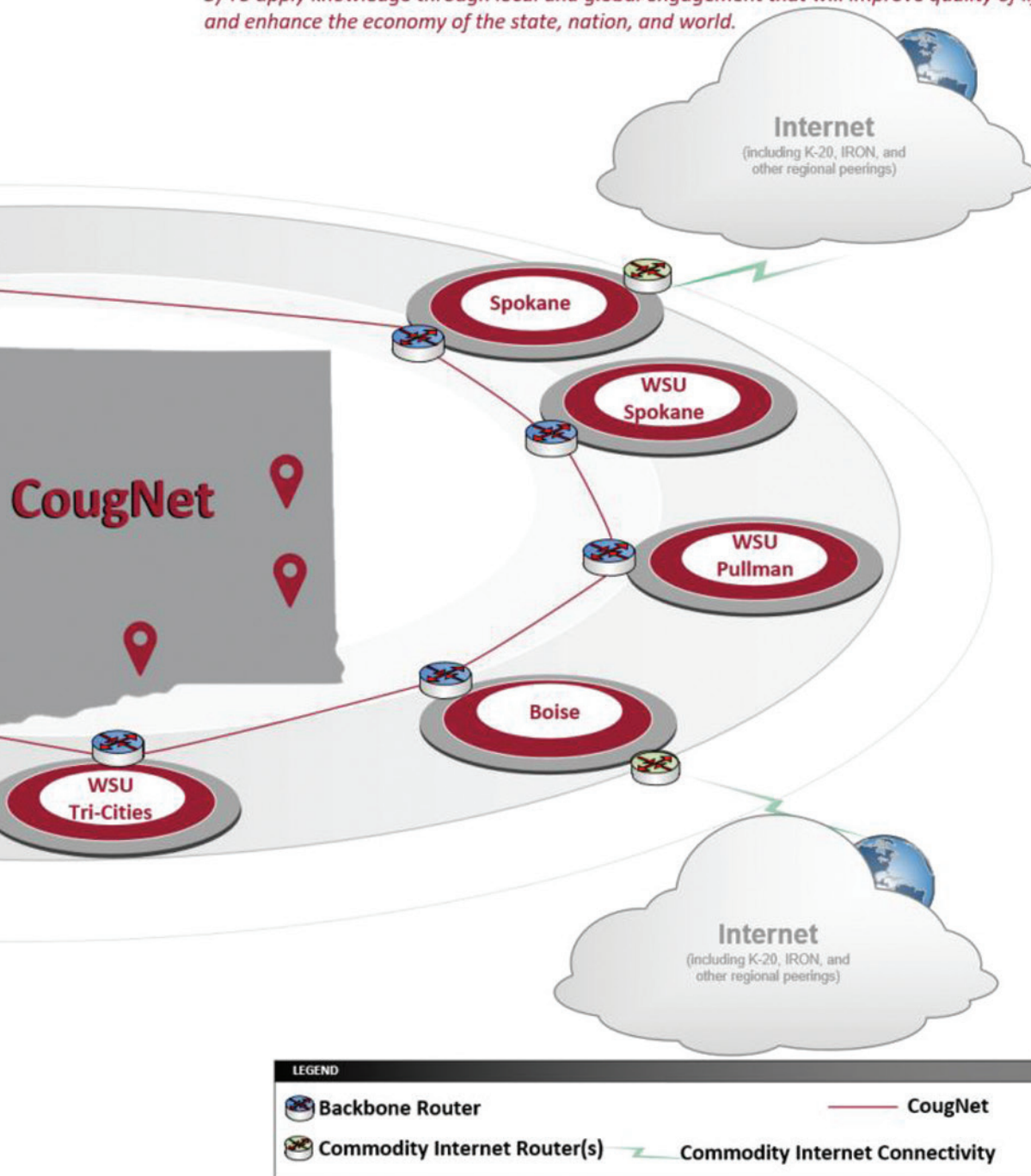
### ***WSU CougNet Statewide Network Mission:***

- 1) Deliver information high-speed through the WSU System from any location at anytime.*
- 2) Advance the Washington State University telehealth initiative in collaboration with both the public and private sector.*
- 3) Provide and enhance access for all to WSU online education.*
- 4) Provide economic development and become an economic engine at the county, state, and national levels.*

*V: WSU will be one of the nations leading land-grant universities, pre-eminent in research and discovery, teaching, and engagement.*

*M: Threefold:*

- 1) To advance knowledge through creative research, innovation, and creativity across a wide range of academic disciplines.*
- 2) To extend knowledge through innovative educational programs in which students and emerging scholars are mentored to realize their highest potential and assume roles of leadership, responsibility, and service to society.*
- 3) To apply knowledge through local and global engagement that will improve quality of life and enhance the economy of the state, nation, and world.*







Information Technology Services

WASHINGTON STATE UNIVERSITY