



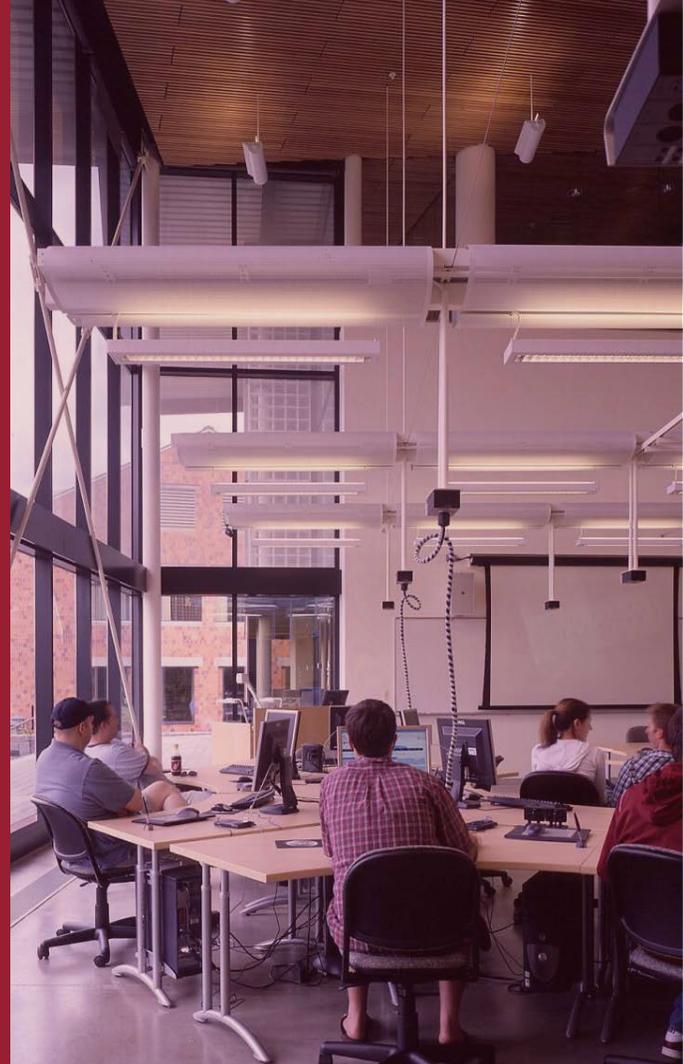
WSU Vancouver
INFORMATION TECHNOLOGY
2015/2016 | Academic Year in Review

CREDITS

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Photos from WSU Vancouver Marketing and Communications photo library

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THANKS FOR A GREAT YEAR!

WSU Vancouver Information Technology strives to meet the technology needs of students, faculty, and staff. In 2015/2016, IT made significant progress in addressing some of the campus's greatest technology issues.

None of those gains would have been possible without the strong and unwavering support of two groups:

Student workers: Every semester, talented student employees staff the IT helpdesk, assist students in WSU Vancouver's three open computing labs, and help with videoconference courses. More than 20 students served in IT over the past year and continuously impressed us with their high level of work and ability.

Campus administrators: Members of the WSU Vancouver administration have embraced the importance of a strong technology infrastructure with consistent feedback and support of IT's efforts. Despite tight budgets, the WSU Vancouver leadership team has proactively empowered IT to improve the campus's technology resources. WSU Vancouver IT appreciates this strong support and works every day to make good on this investment in services.

WSU Vancouver IT wants to thank both of these important groups for helping to make the past year a great one for technology at WSU Vancouver.

What Happened

(pg 14) Fiber improvements **July**

(pg 12) A renewed focus on security **August**

(pg 18) Evita, Your Expert IT Assistant **September**

(pg 16) Expanded Blackboard support **October**

(pg 19) Videoconference systems upgraded **November**

(pg 17) Classroom AV equipment upgraded **December**

2015

in IT this year?

January Reshaping the department (pg 8 - 9)

February TechQual+ IT Survey (pg 6 - 7)

March New team member: Ryan Thomas (pg 10)

April Quad-Fi and other WiFi improvements (pg 15)

May New web server and other upgrades (pg 13)

June New ISS manager: Erik Martinez (pg 11)

2016

In February 2015, WSU Vancouver issued its first campus-wide IT survey, Techqual+. The survey focused on identifying strengths and weaknesses in areas of IT, as perceived by students, faculty and staff. 379 students, 90 faculty, and 100 staff completed the survey. Along with service ratings, nearly 1,400 comments were submitted, often revealing more than any numerical rating could.

After sifting through all of the data, three areas came out as being the clear top concerns:

1. Wifi speed and accessibility
2. Cellphone coverage
3. LMS (Blackboard) quality and support

Many other concerns were also identified, but the IT department spent the past year focusing on improving areas that had the greatest impact and made the most sense in terms of financial and human resources.

To read about WSU Vancouver IT's work to improve campus WiFi, see pages 14 and 15. To read about the department's efforts to help improve the LMS experience, see page 16.

The remainder of the top issues is cell coverage. Though members of the Vancouver IT team surveyed the options available, it is undecided if this is an area that WSU Vancouver should invest in or if the cell providers will step in to alleviate this pain for us as the campus grows.

In February 2016, IT again issued the TechQual+ survey. In all, 278 students, 100 faculty, and 105 staff completed it. Along with ratings, there were 1,250 comments and concerns.

IT was pleased that two of last year's top concerns (WiFi and LMS) saw dramatic improvements, justifying the resources dedicated to those areas. Beyond those areas, many other areas improved.

There is always room for improvement, and these areas were this year's top three concerns:

1. Cellphone coverage
2. LMS (Blackboard) quality and support
3. MyWSU and other web resources

The campus's path to better cell reception remains unclear. Ways to improve coverage are expensive, and most cell providers haven't chosen to invest in the region; however, WSU Vancouver continues to investigate options.

Despite improved ratings of Blackboard support, many students and faculty still consider it a top concern. IT will continue to improve its support for this resource and work with the WSU system to address raised issues.

MyWSU is another vital tool for students and faculty. IT is working with WSU to resolve myWSU issues and is also forming a Vancouver campus group dedicated to improving access to online services specific to the Vancouver campus.

Reshaping the Department



Campus Chief Information Officer Michael Stamper began working at WSU Vancouver in November 2014. He spent the first year taking in as much as he could about the department, the needs of the campus, and its relationship with Pullman. He then took a look at the results of the TechQual+ survey (see pages 6-7) and decided the department needed to evolve in order to best serve WSU Vancouver.

The organizational structure of service teams in IT were restructured in January 2016 with focus on better serving the ever-changing technology needs of students, faculty, and staff. The changes included creation of the Academic Services team, a new office of information security, new IT managers, and even changes in office locations. IT is already seeing benefits from these changes and is looking forward to further improvements as the new service structure solidifies.

ACADEMIC SERVICES

IT Academic Services was formed to better serve the academic technology needs of students and faculty. This team focuses on those aspects of technology that include, among other areas, Blackboard, video-conferencing, accessible technologies, and collaborative tools for teaching and learning.

The team includes Jon Carr, Adam Dvorak, Michelle Eccles, Scott Fraser, Chris Rhoads, and Ryan Thomas. They collaborate closely with Academic Affairs and Michael Caulfield, Director of Networked and Blended Learning, to support teaching and learning on campus. Michelle Eccles serves as manager of Academic Services.

TECH SUPPORT SERVICES

TSS may be the area that people first think of when they think of Vancouver IT, as it includes those you see around campus helping with general computer and technology problems as they arise. Patti Paris, Marty Randolph, Sujatha Shynne, and Aaron Thorne make up this team, along with a cast of more than a dozen students who support the HelpDesk and student computer labs. Patti Paris leads this group.

Beyond general technical support and training, members of this team help to support the campus WiFi network, security cameras, web servers, computer imaging and replacement, and almost any device or technology that comes along.

INFRASTRUCTURE SUPPORT SERVICES

The Infrastructure Support team manages the underlying technologies that enable WSU Vancouver's tech resources to function. This includes the wired and wireless network connections, phones, servers, file storage, and the safeguards and permissions that control access to those resources.

Erik Martinez is the new manager of this group. He joins Matt Finlayson (storage and backup), Ryan Parker (WiFi, networking, security), Patrick Reiter (servers, file shares), and Lori Wallachy (phone systems and networking). This group implements network, telecom, and server upgrades as they are funded, and they have a plan for how the network and computing environment should continue to evolve into the future. You may not see them out and about very often, but they're always working to keep us and all of our devices going.

INFORMATION SECURITY

The newest area, the office of Information Security focuses on threats, external and internal, that could put the security of the campus's systems and the information that travels within them at risk. Similar to Infrastructure Support, Information Security's goal is to work diligently unseen, and to protect campus resources without negatively impacting functionality.

Chuck Harsch brings his many years of experience in network infrastructure and security to this office. Over time, this vital office will likely grow as threats continue to increase.

Ryan Thomas NEW MEMBER OF THE ACADEMIC SERVICES TEAM

As a part of the restructuring of IT, a new technician position was added to the Academic Services team. In March 2016, Ryan Thomas was chosen to fill this role. During the day, you'll see Ryan monitoring videoconference courses, creating tutorials for programs or maintaining the web presence of the Academic Services team.

Ryan comes to us from Portland State University where he was a help-desk specialist with expertise in tier 1 support of Enterprise-level environments, instructional design and desktop support.

Ryan's friendliness and enthusiasm has been a welcome addition to the team, and he has already made a big impact, especially with his work with Blackboard and his assistance in transitioning faculty research information to its new home on a Pullman-based server.



Outside of work, Ryan is an avid filmmaker, having created several music videos for Portland bands along with other projects. He also is an artist who enjoys creating comic book art and traveling to new places.

Erik Martinez NEW MANAGER OF INFRASTRUCTURE SERVICES



Finding the right leader to oversee the team maintaining WSU Vancouver's infrastructure network, servers, and systems, involved several months and a hiring committee consisting of campus and IT partners.

IT is pleased to announce that Erik Martinez has joined the IT team to serve the campus in guiding our short and long-term needs for reliable and accessible WSU Vancouver networks and systems. He began working in early August just in time for the beginning of fall semester.

Erik comes to us from an aluminum extrusion company in Portland where he led the technical support team that managed the company's west coast locations. He is an Oregon State grad and is taking classes toward a master's degree at WSU Vancouver.

Erik has a highly technical background and broad range of skills. IT looks forward to all that he has to offer to the team!

Outside of work, Erik enjoys building gaming PCs, playing basketball, and lifting weights. He also spends a considerable amount of time chasing Donut, his pet rabbit, around the house while she attempts to chew on anything that looks expensive.

A Renewed Focus on Security

IT departments are generally made up of geeks tech enthusiasts, and this department is no exception. IT is as excited as anyone about implementing new technologies as soon as possible. But as the department evaluates new technologies and keeps an eye on things that have been around for decades, a primary focus is always security. Servers, especially those that are accessible from off-campus (web and

email servers, for example), are constant targets for hacking. Web server logs show the high frequency of attempts by hackers to gain access to systems that may be unpatched and unsecured. And more noticeably to most users, spam emails that fill their inboxes sometimes look quite legitimate but lead to hacked accounts when users click on dangerous links.



Vancouver IT has always been concerned with security, but it never had a position focused specifically on security, until now. In response to hacking increases and heightened awareness, IT requested and was granted a new full-time position for information security.

Transitioning into this important position is longtime team member **Chuck Harrsch**. Chuck has been a member of Vancouver IT since 1993 and was the head of the server, telecom, and networking team for more than a decade. He has focused on these issues over the years and is a great choice to fill this role.

Special thanks to the WSU Vancouver budget council for recognizing the importance of this role and taking action to strengthen the campus's position in this area.

Servers Upgraded and Secured

Over the summer and fall of 2015, Vancouver IT took a number of steps to ensure that its systems were up to date and that administrative access was only possible from secure workstations.

The first step was to make sure existing servers were up to date with the system software used to run them. That doesn't always mean upgrading to the latest system versions, but it does mean making sure the systems are fully supported and that they offer the latest security features.

IT always makes sure to upgrade before vendor support ends, but last fall, it accelerated the upgrade process to move its servers to newer versions when doing so offered higher security. IT has many servers, both physical and virtual, so this was a large undertaking.

After that, the infrastructure team looked for areas where points of failure existed and worked to minimize those. This led to migrating the campus web site to a new virtual server with better backups, faster recovery, redundancy, and higher performance. It's not a change you probably even noticed, but that's the goal of many network services: **hopefully you don't notice them as they continue to work.**

Matt Finlayson led the web server migration project, working with Aaron Thorne and Marcomm to make sure it was a smooth transition. With those changes, plus changes planned for the future, the goal is for the website to have zero downtime.

If the server team reaches that goal, you won't even know it.

Fiber Improvements

When the original WSU Vancouver campus was built in the mid-1990s, fiber connections linked the campus together with maximum speeds of 100 megabits per second and a life expectancy of 20 years.

In the past few years, wifi usage has exploded and bandwidth-hungry applications are now commonplace. 100mb is no longer enough, and outdated fiber connections between buildings and floors cause a bottleneck for data.

In Spring 2016, IT upgraded the fiber backbone between several buildings to 10 gigabit single-mode fiber — 100 times the previous speed.

That increase doesn't mean file downloads will be 100 times faster than before; networks are made up of many parts including firewalls, switches, access points and more, each coming with its own limitations.

And beyond our network, internet downloads are limited by the speed of the servers hosting the files. But on WSU Vancouver's network, the legacy fiber connections were the most limiting and most widespread components. Replacing those links provided dramatic increases in available network speed.

With these improvements in place, IT can now explore new and exciting ways to leverage technology on campus.



Faster WiFi, improved cellular phone coverage, cloud-based storage, and enhanced videoconferencing/real-time collaboration are just a few of the benefits that are now possible.

Upgrades to other network components are planned for the coming years. By laying the groundwork for the future with the campus's physical network infrastructure, IT can ensure that the campus continues to maximize advantages offered by the latest technologies.



An Improved WiFi Network

Over the past decade, campus WiFi coverage was first established and then continuously improved and expanded as funding became available. By 2015, coverage was quite good and widespread inside buildings. But as seen in the Techqual+ survey results, users (especially students) were far from satisfied with the experience. Students had to choose between a very slow guest network and a faster student network which was supposed to require a login every day but often needed it much more frequently.

Faculty and staff were also annoyed by the need to register their devices with IT before connecting to the network. So even though our network was solid, the users didn't have a positive experience to match that level of quality.

Something needed to change.

IT assembled a team to figure out a better way. That team included Matt Finlayson, Chuck Harrsch, Ryan Parker, Marty Randolph, Aaron Thorne, Shawn Welter, and team lead Michael Stamper.

After assessing the possibilities, the team settled on increasing the speed of the guest network and streamlining the process of joining the faster network with the use of efficient onboarding software.

Additionally, consultants were brought in to assess network performance and helped to fine-tune access point settings in order to optimize speed and coverage area. The combination of these efforts brought dramatic improvements, which were borne out in the vastly improved Techqual+ survey results.

Future Plans

Beyond a desire for strong WiFi within buildings, students and employees want WiFi coverage in high-traffic outdoor areas.

In April 2016, IT installed three high-powered outdoor antennas that cover the central quad area in a triangular coverage pattern.

Coverage was also added to the bus stop, areas around Firstenberg Student Commons, and the area in front of the bookstore.

Future WiFi expansion will target more areas that are both heavily used and not cost-pro-

100 Hours of Blackboard Support



Over the past year, IT has formed a close and collaborative relationship with Academic Affairs and Director of Blended and Network Learning, Michael Caulfield. Out of this partnership, Blackboard services to faculty have grown into an “Every Week/Every Day” service. Walk-in support, special lab sessions, and hundreds of one-on-one sessions have helped smooth the campus's transition from Angel to the Blackboard learning management system. In fall 2015 alone, IT provided more than 100 hours of Blackboard support to faculty.

Blackboard support is one of the key focus areas of the newly formed Academic Services group. Of that group, Michelle Eccles has provided LMS support for many years and Scott Fraser has stepped in to help for the past couple of years. More recently, Adam Dvorak, Chris Rhoads, and Ryan Thomas have joined in this area of assistance. Two students, Brandon Huber and Anthony Knight, have also provided excellent Blackboard assistance.

Many of the functional aspects of Blackboard are handled by Pullman IT. While the changes Vancouver IT can make to Blackboard's configuration are limited, Blackboard specialists on the Vancouver campus pass on concerns to the Blackboard team in Pullman when they arise. These Blackboard specialists are available on call and at scheduled times in the Vancouver IT offices to help both students and faculty best use this resource.

Library AV podiums upgraded

Over 2014/2015, the AV podiums in the Multimedia Classroom Building were upgraded to include high-definition projectors, all-digital signal flow, high-resolution document camera systems, digital laptop connections, new computers, and a new touchscreen control system. This was phase I of the upgrade plan.

For 2015/2016, IT continued with phase II, which included the classrooms on the second floor of the Library Building as well as two classrooms in the Science & Engineering Building. Between phases I and II, the oldest and most out-of-date podiums were refreshed.

With these upgraded systems, students will see clearer images, and instructors will be able to connect to and use the equipment more quickly and easily than before. And when the remaining buildings are upgraded in future phases, these improvements will provide a consistent experience throughout campus classrooms.

These systems are quite expensive, and IT could not have made these improvements without the support of the budget council members, who recognize the importance of keeping up with technology in the campus classrooms.



Upgrading Our Task Management System

An IT request and service management system is a vital tool for any IT HelpDesk. Vancouver IT has used a number of products over the years but was never fully satisfied with them. IT needed more than a program to keep track of open tasks; it needed a tool that allowed customers to stay in communication and check in on the status of their requests.

Managers also require the ability to generate reports to expose areas of the department that are over- or under-utilized.

This allows managers to refocus people and resources to better handle the department's workload.

3,256 Helpdesk tickets closed in 2015

NEW!



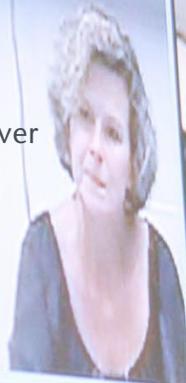
Evita

your Expert Vancouver IT Assistant

The team tasked with finding and implementing a new software solution included many members of Vancouver IT, but in the end, Patti Paris and Patrick Reiter played the most vital roles, and Evita, your Expert Vancouver IT Assistant, was born in time for fall semester, 2015.

In the first year of usage, IT has already seen an increase in productivity and accountability through the use of this system.

150 VCS courses held on campus
2,788 meetings held on campus
64 originated from WSU Vancouver
4,434 videoconferences overall



Videoconference Systems Upgraded

The videoconference systems send and receive a high volume of courses and meetings each year. That number continues to increase, growing by nearly 10 percent in 2015.

With such active use and more planned for the future, upgrades are necessary to improve the user experience, increase capacity, and improve video quality. These needs resulted in a three-year plan, funded by one-time funds, to upgrade all existing videoconference rooms and equipment.

During 2015, five rooms were upgraded with new devices and televisions, two conference rooms were furnished with new capability, maintenance contracts and software licenses were renewed, and monitoring equipment was upgraded for all of the Engineering & Computer Science Building (the campus' videoconferencing hub).



Vancouver IT is comprised of 18 team members and more than 20 student workers. These students work at the HelpDesk, assist in computer labs, help staff and faculty around campus, and work on numerous projects inside the department. IT couldn't do what it does without them!