

**Information Technology Services**

**FY2019 Technology Plan**

Plymouth State University has a strong and dedicated team of technologists, with exceptional skill sets and problem-solving abilities. We enjoy the advantages of a well-honed technology support group, and over time we have met and often exceeded the expectations of our University Community. However, as technology needs become more ubiquitous across campus, and stability, availability, speed and diversity of services are increasingly important, some of the systems we maintain and depend on are increasingly obsolete. PSU must make appropriate and informed investments in technology, or we may find ourselves at a tipping point where the technologies we provide are incompatible or outdated.

With this five-year plan, we look to make address these needs, make access to technology at Plymouth State University ubiquitous, yet transparent, and achieve strategic advantages both academically and in business. Fulfillment of this plan would necessitate increased up-front investments in technology and technologists, however with this, we achieve our goals of utilizing technology to enhance the campus and the educational experience, provide decision data campus leadership needs, and ensure technology at Plymouth is a draw, not a deficiency. Over time, these wise investments can pay off in greatly enhanced services, strategic advantages from technology, and savings associated with reducing the time spent by our staff members currently required by older manual processes.

The goals of the ITS Five-Year Technology Plan fall into six major themes: Infrastructure; Application and Development; Academic Support; Technology Services; and Strategic Technology Planning. There is significant overlap between the themes, and work done on infrastructure, for example, will go far to support the academic mission of the University.

**Infrastructure**

Infrastructure Services at PSU encompasses, Data Networking, Telecommunication, and CATV.

Data Networking at PSU is the fastest growing area under the infrastructure services umbrella.

Wireless is the service our user community demands the most. We have wireless coverage in all academic, administrative, residential buildings. We also cover a large portion of outdoor green space. We have over 850 wireless access points deployed across campus; we add approximately 100 each year. Our user community now connect more bandwidth hungry devices than ever before. Video streaming devices now use more bandwidth on wireless than any other service.

This growth doesn’t occur in isolation we must continually improve the network core/internet bandwidth to keep up with the demand. There are six core/distribution routers currently in production that will be end of support June 2020. We are moving forward with plans to upgrade the impacted routers.

One of the greatest challenges in network is balancing the user’s need for access to data and the security of the data itself. We are required by law (HIPPA/FERPA/PCI) to keep our data secure. We use role based access controls to permit access appropriate to each individual’s needs.

We use Palo-Alto’s Wildfire and Threat protection, in addition to standard best practices to ward off attacks from outside sources.

Telecommunication is changing significantly. Today our community demands more than just telephone calls. We are upgrading our telephone system to add new features, voice mail to email, and integration with Sales Force. Our marketing, enrollment, and student success departments are using Sales Force improve communication to our students before, during, and after enrollment. Telecommunications is becoming more about collaboration, virtual conferencing, location and presence.

CATV: We provide Cable TV service to all residential dorm rooms and residence hall. We also provide service to common areas like the dining halls, and we provide it to classrooms and administrative spaces as needed.

**Academic Support**

Client Services is a major arm of Information Technology Services charged with ensuring that PSU students, faculty and staff have the support they need to use the various IT services provided by the department.  Our organization is a 7-day a week operation providing support in person, on the phone, via chat and through email.

In addition to partnering with the other IT work teams we also work in partnership with the other members of the Lamson Learning Commons – an integrated model of support including Library, Writing Center and the Center for Transformation all co-located within Lamson.

For FY19 our focus will be in several areas, the highest priority on evolving and improving services in support of PSU’s transition to Integrated Clusters. As the Institution works to create a flatter, cross-disciplinary organizational model independent of the academic disciplines, our view of the campus and the support we provide becomes broader and less restricted by the traditional academic departmental boundaries and approval processes.   We will work to simplify our support models, reducing the dependencies on hierarchal approvals and workflows.  We will work to improve our interfaces for faculty, staff and students and better automate our processes to enhance the support we provide to the campus.

The merger of the Academic Technology team as part of Client Services in the 2016, has improved the responsiveness of support requests related to Teaching and Learning.  Faculty and students now regularly give this area high marks for the service and support they provide.  Additionally, the slate of monthly technology-related Professional Development opportunities for the PSU community now stands at more than 80 hours per month.

Innovation is also key to future success.  Exploring new and innovative technologies allows us to envision possible future tools that might be leveraged to improve teaching and learning for PSU students, faculty and staff.  Working with our Learning Commons partners to improve the support model within the Learning Commons – finding synergies in the building where we can assist each other and improve the student experience – thus helping with student retention and persistence.

In Fy2019, we will be working with Admissions and the Computer Science department to create an enhanced student employment experience for incoming Computer Science and IT majors.  This program would take our already successful Help Desk Student Worker training program to the next level and combine a cohort model, with individualized mentoring, additional professional development opportunities and targeted tutoring to help new students engage more fully in both the academic and professional aspects of their majors; all-the-while helping with recruitment, retention and persistence.

**Application and Development**

The Application and Development Group provides support for the Universities’ application portfolio. Support includes the implementation and integration of new applications (including the Universities’ databases,) upgrading and patching of existing applications, data integration between applications, workflows, and the development of customized applications. Applications used by the University are a combination of hosted or on premise solutions. Solutions range in scope from enterprise applications such as the Banner Student Information System or the myPlymouth portal, to applications used by a single functional area such as the registration application for the New Hampshire Music Festival.

Over the next 3 top 5 years Application and Development resources is committed to keeping pace with the organizational, programmatic and services changes occurring at University resulting from the move to Integrated Cluster as well as the increasing assessment and accountability requirements for State and National accreditation.

New advancements in technology, online services, user expectations, and market competition will influence and drive the rapid deployment of new or upgraded solutions. Application and Development will continue to prioritize implementations, upgrades and development of new applications as required by the business and academic needs of the institution with careful consideration for total cost, fit for purpose and use, and business continuity.

**Technology Services**

During the last few years we have seen a marked increase in the use of cloud hosted solutions and offerings that need to be carefully evaluated.   The most significant, to date, is our move to host email (Office 365) in the cloud.    This particular move, not only relieved what was an ever growing need for expanded storage, but also simplified our backup strategy while expanding the number of services we must now support (MS Teams, Onedrive, Sharepoint, etc..).

The university system, as a whole, is entering into a new contract with our PC provider Dell to achieve better pricing and reduce the amount of repair work we perform on campus.  This will reduce the amount of technical resources we have to dedicate to this activity allowing us to shift resources into other areas.

The shift at the university to Clusters has created a growing set of services/technologies that we must support with a set of resources that are not growing.  Open labs create many opportunities for students, while also creating support complexities on the backside.  Where possible, and practical, it is still desirable to stick with established standards.

In the recent past, we focused on server virtualization as a way to control costs and maximize efficiency.    The pendulum has now shifted to look at desktop computing in a similar way.  We have already created a Virtual Desktop Infrastructure for about 150 student use computers, and look to expand further in the years to come.  This will allow us to purchase lower cost and longer lived stations that require fewer resources to maintain.

**Strategic Technology Planning**

In 2016, Strategic Technology Services was created within ITS which included all previous business services that were still conducted within ITS, including but not limited to budget planning, printer/MFD services, as well as the new addition of ITS project management for Plymouth State University. ITS Project Management assists with managing budgetary resources, staff resources with the assistance of the other IT Directors, as well as overseeing how each technology project and plan impacts each other within the ITS Project Portfolio.

Strategic Technology Services has been successful in providing collaboration and increased communication for inter-departmental projects, proven by successful completion of 12 software projects in 2017. It is also important to note that in 2017, we were also running in parallel some large projects which were completed or plan to be completed in 2018, such as Cluster Connect and the Banner 9 upgrade testing plans. Also included, were initiatives such as MaxGalaxy upgrades, which assists the Welcome Center’s Ice Arena, and AcademicWorks which assists students get the most knowledge of aid opportunities from Financial Aid.

For FY 2019, goals will include leveraging our current tools within Microsoft 0365 to create an external communication plan where constituents outside of ITS will be able to our ITS project list, timeline of each and some charter details with expected end dates. We hope that this will create a true transparency in relation to projects communications that have been needed for many years across campus from Information Technology at PSU.

For projects planned for 2019, there are many great and innovative projects that are actively being implemented including CourseLeaf Catalog and EduNav, which will both benefit students as these are services to improve their experience with course and program selection and registration. We are also expecting to complete our large SIS upgrade to Banner 9 by the end of 2018 or early 2019.

Strategic Technology also has been working on defining and refining the technology project intake process, which includes charter creation, defining needs, scope, resources and time management. In this process there was also a prioritization process created to assist in leveraging resources most efficiently defined by the cabinet. We will continue to work with the departments and increase efficiencies and processes through research, collaboration and strategic planning based on the needs of the constituencies.