

Unit Strategic Plan: Information Technology Services

2014/2015 through 2018/2019

A more detailed version of this plan can be found at:

<http://sites.psu.edu/itsstrategicplanning/its-strategic-plan-pdf/>

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| Information Technology Services2015-2019 Strategic Plan Update (April 15, 2015) |
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| Our Vision |
|  ITS will be an innovative leader and trusted partner in the development and delivery of responsive IT services and support. |
| Our Mission |
| ITS, as a partner, evolves and supports IT services that enable the advancement of world-class education with global impact. |
| Goals |
| A: **Enable Learning** - Collaborate with educational support units to research, assess, and support new pedagogical models and educational technologies, enabling growth in residential, online, and hybrid instruction.  |
| B: **Support Research and Innovation** - ITS will collaborate with research support units to develop innovative IT resources and services that enhance research capabilities, enable appropriate access to data, and maximize storage and processing potential.  |
| C: **Modernize Enterprise Systems and Practices** - ITS will enable data-informed decision making to drive mission-aligned administrative solutions and support enterprise operations.  |
| D: **Advance IT Effectiveness** - ITS will deliver high-quality, customer-focused IT services that scale to meet diverse needs through consistent, collaborative, and efficient practices and progressive IT staff development.  |
| E:  **Foster a Collaborative Culture and Community** - Ensure that the Values and Foundational Principles of ITS support a healthy community of diverse and supportive staff, making ITS a highly desired place to work and a widely sought unit for collaboration.  |
| F: **Align IT Security, Identity, Physical and Network Access** - Transform networking, identity and security environments to a unified and flattened information infrastructure to increase insight into real threats and provide a secure and enabling posture for research, teaching, outreach and administration.  |
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| Overarching Strategies |
| The following overarching strategies apply to each of the five main goals and are key factors in implementing the strategic plan: |
| ***Accessibility*** | Accessibility at Penn State refers to the right and ability of people to access educational opportunities and perform work responsibilities. Penn State systems, tools, websites, and other technologies that support education must be accessible to people, regardless of their physical characteristics, geographic location, or socioeconomic status. In working toward achieving strategic goals, ITS will not only comply with Federal laws and regulations that address accessibility as it relates to people with disabilities, the unit will also provide leadership toward University-wide accessibility efforts. |
| ***Benchmarking, Measurement, and Assessment*** | Benchmarking, Measurement, and Assessment strategies form the foundation of data-driven decision making. Each goal will incorporate methods for benchmarking metrics across other IT organizations in higher education, establishing baseline data for the goal, partnering with other entities to gather data to measure progress. |
| ***Communication*** | Communication plans will be developed and implemented in conjunction with projects and strategies associated with each goal. Communication will be ongoing among team members, between ITS and ITLC, across colleges, campuses, administrative units and departments, and beyond Penn State as appropriate. |
| ***Engagement*** | Engagement with organizations both internal and external to Penn State will play an important role in moving forward. Individuals, teams, and departments will explore and form mutually beneficial partnerships and collaborative initiatives. |
| ***Governance and Planning*** | Governance and Planning are essential to identifying and prioritizing ITS and IT initiatives and should be applied as they relate to each goal. Establishing governance and planning strategies will help to identify necessary services, determine the most important work, and prioritize efforts and assignment of resources. |
| ***Security and Privacy*** | Security and Privacy are critical for ensuring appropriate levels of data confidentiality, integrity, and availability as well as the reasonable protection of identities and personal information. Processes and procedures that integrate security, privacy, and compliance with legal and regulatory requirements will be adopted as they relate to each goal. This includes all phases of system and service development and procurement, as well as working with University business units to ensure that the security measures taken by third party service providers processing or storing Penn State data are consistent with Penn State’s requirements. |
| ***Training*** | Training will be developed for tools, systems, and initiatives as needed to reach each goal. Training will be customized per goal or strategy and may be internal to ITS or focus on helping users and developers of specific tools and services. |

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| Goal A: Enable Learning |
| Collaborate with educational support units to research, assess, and support new pedagogical models and educational technologies, enabling growth in residential, online, and hybrid instruction. |
| ***Objectives*** |
| 1. Increase faculty opportunities to effectively assess learning outcomes. |
| 2. Scale instructional resources to promote best practices in teaching and learning. |
| 3. Pilot innovative learning technologies through collaboration with colleges and campuses. |
| ***Strategies*** | ***Tactics*** |
| **Action Step** | **Action Outcome** | **Target** |
| a. Collaborate with educational support units to gather and analyze faculty and instructor needs. | i. Formalize emerging technology evaluation process. | 1. A replicable and scalable process to evaluate new technology as a method of faculty/instructor engagement. | Aug 2015 |
| ii. Develop a plan for collaborating with support units. | 1. A plan for implementing new unit engagement programs that makes use of existing events (Symposium, Summer Camp, Tailgate) to inform TLT efforts. | Jan 2016 |
| b. Cultivate collaborative relationships with faculty whose research focus is learning technologies. | i. Build teaching and learning research capacity within ETS. | 1. Approved budget and staffing to support faculty research. | Apr 2016 |
| ii. Perpetuate awareness of TLT research support. | 1. Increase the number of faculty collaborators for research publications and funded grants. | Apr 2017 |
| iii. Extend the TLT Research Fellows Program. | 1. Create an active community of researchers that attracts new faculty to collaborations with TLT.  | Apr 2017 |
| iv. Develop visiting scholars program. | 1. Attract scholars of TLT from around the world to partner with PSU faculty on research and grant funded projects. | Apr 2018 |
| c. Establish an effective learning analytics (predictive) platform. | i. Implement Learning Analytics system at Penn State. | 1. *Illume* (administrative dashboard) rolled out to core IR/administrative users.2. *Inspire* (for Faculty or Advisors) rolled out and active pilots and assessment plan underway.3. Integrate analytics into LMS and other learning platforms, via LTI or other mechanism.4. Learning Analytics Advisory Committee has identified academic and legal policy issues related to analytics, and developed communications and assessment strategies.5. Report delivered to VP for IT, VP or Outreach and Online Education, and VP for Undergraduate Education on impact of Civitas Learning. | Apr 2017 |
| ii. Establish Learning Analytics research agenda for Penn State. | 1. Convene Learning Analytics research cluster, in partnership with Civitas Learning.2. Articulate key university priorities to drive research project selection.3. Support faculty-led, grant-funded, published research project. | Apr 2017 |
| iii. Support Learning Analytics technology innovation. | 1. Support staff-, faculty- and student-led technology projects that leverage analytics capabilities (especially the Civitas platform) in novel ways.2. Deploy Penn State-created or -enhanced analytics technology to Faculty/Students. | Apr 2017 |
| d. Identify and encourage the use of best practices for learning spaces. | i. Establish the Bluebox Studio classroom. | 1. Secure funding, design, and build a new learning space that can be used to support faculty in the development of new teaching methods and scholarship. | Aug 2016 |
| ii. Design and implement a faculty development program for effective uses of learning spaces. | 1. Provide a programs that advance faculty teaching and enables course redesigns focused on active learning in spaces like (and beyond) the Bluebox Studio. | Aug 2016 |
| iii. Implement active learning classrooms across PSU. | 1. Secure support and funding from the UCIF to expand the number of active learning classrooms. | Aug 2018 |
| iv. Explore opportunities to enable new models of teaching and learning through campus computer labs. | 1. Establish a strategic plan for the research and development of campus computer labs as active/informal learning spaces. | Aug 2017 |
| e. Replace ANGEL with a robust and scalable learning management system (LMS). | i. Deliver new LMS recommendation to Provost. | 1. Final Canvas pilot report and LMS selection. | Jun 2015 |
| ii. Acquire LMS. | 1. Approved budget, acquisition completed and new LMS contract in-place. | Jun 2015 |
| iii. Develop LMS Implementation/ Transition Plan. | 1. LMS Academic Transition Steering Committee established and approved university-wide transition plan. | Jun 2015 |
| iv. Implement LMS Transition. | 1. Faculty/staff/students are trained; all course-sections available on new LMS,and; ANGEL is phased out. | Dec 2017 |
| f. Identify and encourage the use of best practices for learning technologies. | i. Establish formal faculty development programs for course design/redesign. | 1. Systematic and scalable model for engaging faculty in the course design/redesign process that is rooted in course design, faculty development, and research. | Jan 2016 |
| ii. Form communities of teachers from across the university. | 1. Active groups that attract and support faculty teaching and research around technology. | Aug 2017 |
| iii. Develop and expand TLT Fellowship programs.  | 1. (Connected to TLT research goal/actions.) Expand the TLT Fellowship model to include Research Fellows and Course Design Fellows. | Apr 2017 |

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| Goal B: Support Research and Innovation |
| Collaborate with educational support units to research, assess, and support new pedagogical models and educational technologies, enabling growth in residential, online, and hybrid instruction. |
| ***Objectives*** |
| 1. Determine the appropriate number of buildings connected to the research data network at Penn State. |
| 2. Collaborate with the Institute for Cyberscience governance to ensure that ITS understands cyberinfrastructure requirements to inform future data center, storage, and network capacity planning. |
| 3. Increase the number of faculty onboarding activities in which ITS participates. |
| ***Strategies*** | ***Tactics*** |
| **Action Step** | **Action Outcome** | **Target** |
| a. Collaborate to build a Penn State researcher onboarding process and build customized researcher portal. | i. Define the Strategy Team.  |  A productive diverse team that reaches across the University. Is inclusive of developers, research IT, Research staff, Infrastructure representation, BRM, service delivery, Communication/Marketing. | Jul 2015 |
| ii. Define and document the purpose and goals for the process.  | Stated purpose (mission) and long term aims the define the accomplishment of the mission. | Sep 2015 |
| iii. Define and document the purpose and goals for the portal build. |
| iv. Define and document Critical Success Factors for each of the goals. | Identify items or issues that must be controlled to achieve on or more of the objectives and look at barriers that may hinder progress and related mitigation strategies. | Oct 2015 |
| b. Collaborate with the Office of the Vice President for Research to understand and respond to researcher needs across disciplines. (Business Relationship Management) | i. Receive approval of implementing Business Relationship Management on behalf of ITS. | Approval to implement the BRM role within ITS. | Aug 2015 |
| ii. Work with the Office of VP for Research to clarify the BRM role and determine how it will support its business goals. | Clarity for ITS and the OVP of Research as to how the BRM role will operate and provide support. | Aug 2015 |
| iii. Finalize how the BRM role will interact with ITS’ Service Portfolio processes and IT Governance. | Clarity as to how the BRM role can submit requests for new services to support the needs of researchers.  | Sep 2015 |
| c. Work with University Libraries to enhance and promote the use of Scholarsphere and data management. | i. Create partnerships to incorporate ScholarSphere to data life cycle services that are currently in place for data management with research and scholarly data. | An integrated workflow for sharing, discovery, access, and preservation of scholarly, and research data. | Jun 2016 |
| ii. Advocate ScholarSphere as potential solution for open access publishing initiatives. | Increased usage and access to university research outputs. | Sep 2016 |
| iii. Elevate ScholarSphere’s footprint by providing support for large data sets and complex data modeling. | The ability to support more common relationships and preserve larger data sets for the university. | Jan 2016 |
| iv. Expand existing ingest process for various data repository needs. | Expand existing ingest process for various data repository needs. | Apr 2016 |
| d. Provide federated, collaboration opportunities to allow Penn State researchers to collaborate with colleagues from external institutions and organizations. | i. Assist Service Providers (internal, external, or vendors) in identifying and understanding opportunities to employ the federation infrastructure. | Facilitate the acceptance of external institution or organization credentials from federation partners (for example, from within the InCommon federation) for authentication (AuthN) and authorization (AuthZ), when applicable in selected collaboration tools for which such credential acceptance is supported within the scope of the particular federation agreement. | Jul 2016 |
| ii. Provide guidance to prospective Service Providers to employ the federation infrastructure. |

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| Goal C: Modernize Enterprise Systems and Practices |
| ITS will enable data-informed decision making to drive mission-aligned administrative solutions and support enterprise operations. |
| ***Objectives*** |
| 1. Develop architectures to be used by all enterprise systems and those that access enterprise data, and ensure that all new enterprise solutions comply with adopted University enterprise IT standards. |
| 2. Meet the business requirements of the University for all enterprise-wide services that ITS delivers or for which ITS provides supporting technologies. |
| 3. Establish a consistent institutional data architecture supporting operational reporting and business intelligence. |
| 4. Decrease the number of services duplicating functions of centrally supported enterprise services (i.e., shadow systems). |
| ***Strategies*** | ***Tactics*** |
| **Action Step** | **Action Outcome** | **Target** |
| a. Establish an enterprise **IT architecture** that provides governance and addresses security, continuity, compliance, modern interoperability and mobility. | i. Prioritize, resource and implement relevant IT architecture recommendations of external reports and audits consulting service reports (Gartner) and audit findings (DCAA, Deloitte & Touche, and internal audit). | Managed risks based on rational, resourced and deliberate implementation of consulting organizations' recommendations. | Jul 2018 |
| ii. Create partnership with Penn State's Institute for Enterprise Architecture to participate with and gain value from industry members' experiences. | Understand the external environment related to IT architecture, sharing knowledge and experiences for the benefit of all participants. | Dec 2015 |
| b. Establish an enterprise **data architecture** that provides governance and addresses security, continuity, compliance, modern interoperability and mobility. | i. Prioritize, resource and implement relevant data architecture recommendations of external reports and audits consulting service reports (Gartner) and audit findings (DCAA, Deloitte & Touche, and internal audit). | Managed risks based on rational, resourced and deliberate implementation of consulting organizations' recommendations. | Jul 2018 |
| ii. Create partnership with Penn State's Institute for Enterprise Architecture to participate with and gain value from industry members' experiences. | Understand the external environment related to data architecture, sharing knowledge and experiences for the benefit of all participants. | Dec 2015 |
| c. Ensure data confidentiality, integrity, and availability are fundamental considerations at all stages of enterprise IT system and software (service) development and procurement . | i. Aggressively promote the adoption of IT industry service and technical standards and best practices. | Remain relevant related to external and internal best practices and requirements. | Dec 2015 |
| ii. Actively engage partners/customers, vendors, standard-setting organizations, open-source communities, and communities of practice. | Dec 2015 |
| iii. Provide professional IT training to support the use of modern development technologies and techniques.  | Ensure an appropriately trained workforce to implement systems, services and software in a modern, secure manner. | Jul 2018 |

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| Goal D: Advance IT Effectiveness |
| ITS will deliver high-quality, customer-focused IT services that scale to meet diverse needs through consistent, collaborative, and efficient practices and progressive IT staff development. |
| ***Objectives*** |
| 1. Increase consolidation of service management and service desk functions across ITS, and support a subscriber model for all of IT. |
| 2. House all on-premise ITS servers in the central Data Centers. |
| 3. Inventory skills in the ITS workforce, and institute procedures for continuous skill development. |
| 4. Create job profile and role-specific professional development curricula. |
| ***Strategies*** | ***Tactics*** |
| **Action Step** | **Action Outcome** | **Target** |
| a. Develop a shared understanding of business relationship management (BRM) and customer relationship management (CRM). | i. Conduct research as to how ITIL and the Business Relationship Management Institute define BRM. | 1. An understanding of the tactical, operational and strategic views of BRM and how the maturity of an IT organization can impact the effectiveness of a BRM initiative.  | Aug 2015 |
| ii. Benchmark with other universities who have implemented Business Relationship Management. | 1. Insight into different BRM implementation models and strategies as well as the benefits to business.  | Aug 2015 |
| iii. Present BRM findings to the ITS Senior Leadership Team. | 1. ITS leadership will understand what BRM is and how other universities have implemented it. | Sep 2015 |
| b. Develop and implement common sourcing plans and practices. | i. Establish initial sourcing strategy guidelines. | 1. Sourcing models in use identified and existing vendor spend analyzed.2. Current Supplier Management process(es) assessed and Functional (procurement) structures identified.3. Understand functionality of new IBIS replacement and its relationship to this effort.4. Potential Supplier Contract Management Systems (SCMIS) identified.5. ITX Sponsor decision for additional funding, resources, and vendor support to include Supplier Management as part of the ITX Program. | Dec 2017 |
| ii. Establish Supplier Management process (v1.0); integrate this into the ITX Program rollout. | 1. Contract / engagement with VMWare to complete phases 2, 3, and 4 of this strategy.2. Potential aggregation of SCMIS sources.3. Follow standard process deployment - Procurement procedures and processes established.4. Financial Management integration. | Dec 2018 |
| iii. Establish Sourcing Decision Framework. | 1. Change, SACM integration.2. Risk Management integration.3. Federated sourcing decision framework (Risk matrix/filters, Sourcing matrix, Strategic Alignment). | Dec 2019 |
| iv. Establish Supplier Management process (v2.0). | 1. ITAM integration.2. SLM, Design Coordination integration.3. Capacity / performance integration. | Dec 2020 |
| c. Adopt, leverage, and sustain the principles and practices from the IT Transformation Program (ITX) within ITS and partner with other IT units. | i. Establish a Service Management Office (SMO). | A center of excellence is available for guidance on service management policy, process, and procedures and the roles and responsibilities involved in performing them. | Aug 2015 |
| ii. Establish process and role training. | Foundational training is available on service management, as well as training on roles and responsibilities, advanced knowledge required for specific roles, and training on tool use. | Aug 2015 |
| iii. Establish communication plan. | Appropriate communications are defined to make affected individuals aware through venues like the ITS Newsletter, Vice Provost Reports, Release and Deployment plans, Process Primers, and Notification Templates. | Aug 2015 |
| iv. Each pilot and early adopter group has subscribed to each process. | Five initial IT units are using common processes in a common tool. Consistent data is available to governance bodies for analysis across the groups involved. | Dec 2016 |
| d. Develop plan and process to move disparate IT infrastructure into colocation at the enterprise Data Centers. | i. Establish enterprise Data Center governance. | Form a group of university business leaders to drive adoption of best practices in data center efficiencies and IT infrastructure management. | Oct 2015 |
| ii. Develop funding model and sources for sustainability of Data Center services. | Working model of costs and funding sources approved by Data Center governance group, including representatives across IT. | Jul 2016 |
| iii. Expand Data Center services across Penn State with increased staffing and operational capacity. | Operating under best practices in data center efficiency and IT infrastructure management. | Jul 2019 |
| e. Develop a coordinated and strategically aligned IT professional development program that and prepares ITS for future business demands by ensuring staff have the necessary and appropriate skills. | i. Perform comprehensive study with consultant to analyze current state and provide benchmark data. | Identify the range of current approaches to workforce training, create IT skills inventory and define set of benchmark data to use for monitoring and improvement. | Dec 2015 |
| ii. Create professional development framework based on study that outlines future desired state and understand gaps to achieve future state. | An IT workforce skills and development framework that will position ITS to support information technology into the future while ensuring more effective and efficient use of university resources. | June 2016 |
| iii. Implement, monitor and improve professional development strategy and framework. | Leadership approval for professional development framework, including funding and other resources to implement and sustain the professional development program. | Jul 2016 |

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| Goal E: Foster a Collaborative Culture and Community |
| Ensure that the Values and Foundational Principles of ITS support a healthy community of diverse and supportive staff, making ITS a highly desired place to work and a widely sought unit for collaboration. |
| ***Objectives*** |
| 1. Determine a measure to track workplace productivity. |
| 2. Increase workplace satisfaction and comfort. |
| ***Strategies*** | ***Tactics*** |
| **Action Step** | **Action Outcome** | **Target** |
| a. Develop a program to expose ITS staff at all levels to the benefits of participating in collaborative opportunities and partnerships. | i. Establish a position to project manage and guide climate, diversity, grassroots personal and professional development, and similar collaborative opportunities and programs | A part-time staff member is working out of the vice provost’s office to project manage and guide these efforts. | Jul 2015 |
| ii. Reorganize Climate and Diversity and IT Connects efforts under new umbrella function housed under the vice provost’s office. | A formalized and funded support function will exist under the vice provost’s office to provide project management and guidance to related efforts. Volunteers and others conducting work as a part of related efforts will work at the direction of and/or in concert with this function. | Aug 2015 |
| iii. Leveraging existing programs, plans, and data, create a roadmap of for climate, diversity, grassroots personal and professional development, and similar collaborative opportunities and programs. | A multi-year roadmap will exist and be used to plan and execute ongoing and future tactical and strategic efforts to support these efforts. | Jan 2016 |
| b. Ensure clear expectations of job responsibilities and performance. | i. Use YOU@PSU to annually update employee job responsibilities and performance standards. | Employees will have increased clarity regarding their job duties and expectations which should contribute to increased work place productivity and performance. It may also help increase employee job satisfaction by reducing stress and confusion. | Annually in January |
| ii. Establish as best practice the scheduling of quarterly meetings between managers and employees to discuss job duties and provide feedback on performance. | Regular and timely feedback will correct performance issues early, to avoid rework and errors, as well as provide motivation and acknowledgement of successes and exceptional contributions. | Quarterly |
| iii. Plan for management 360 evaluations every three years to provide on-going assessment of management communications and effectiveness and to inform professional development needs. | 360 evaluations provide a safe and confidential avenue for supervisors, peers, and subordinates to provide feedback regarding management effectiveness, which in turn will allow appropriate coaching, training or other professional development opportunities to be provided management. | Three years, beginning 2017. |
| iv. Utilize Climate and Diversity Survey feedback to gauge improvements in communications between managers and employees. | Increase satisfaction with management/employee relationships and increased productivity and technical performance. | Three years, most recent 2015. |
| c. Provide access to leadership tools and tactics that support employee well-being. | i. Hire one to two grad assistants to support the new position being hired as outlined under Goal E, Strategy one. | Grad assistant(s) will be able to support the new position and umbrella effort by compiling resources, reviewing and synthesizing survey and assessment data, scanning the University for opportunities to collaborate and partner. | Sep 2015 |
| ii. Reassess and strengthen communications efforts to expose staff to opportunities. | Existing communications efforts will be strengthened or realigned/expanded to reach a larger segment of the IT workforce, and will be regularly measured for reach and effectiveness (and adjusted accordingly). | Ongoing; assessed comprehensively at least once per year, ideally once per semester. |

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| Goal F: Align IT Security, Identity, Physical, and Network Access |
| Transform networking, identity and security environments to a unified and flattened information infrastructure to increase insight into real threats and provide a secure and enabling posture for research, teaching, outreach and administration. |
| ***Objectives*** |
| 1. Enable transparency of the network from border to wallplate for SOS monitoring of network activity to enable awareness of threats in near real time. |
| 2. Adopt the Central Person Registry as a sole authoritative source for person identity information, in alignment with AD-80. |
| 3. Implement the major recommendations in the Gartner Roadmap (January 2015). |
| ***Strategies*** | ***Tactics*** |
| **Action Step** | **Action Outcome** | **Target** |
| a. Develop governance processes to manage IT risk and security issues and develop policies and enforcement measures necessary to drive the proper use of university data. | i. Building alignment in Board of Trustees (as appropriate), university risk council and university executives toward an understanding of roles and responsibilities related to the business use and storage of sensitive university data assets and delivery of information technology.  | Engaged executives and Board of Trustees (as appropriate) support awareness and accountability measures within their units. | Jul 2015 |
| ii. Develop communication infrastructure and work within the IT Leadership Council to further awareness of the university's current state regarding IT privacy and security maturity. | IT Leadership Council Board and membership actively support and communicate information privacy and data security concerns from within their units to the Vice Provost for Information Technology. | Dec 2015 |
| b. Leverage consulting service reports (Gartner) and audit findings (DCAA, Deloitte & Touche, and internal audit) to understand and implement best practices in IT privacy and security. | i. Develop, design and build a core network security environment to include protective and collective strategies for hosts, networks, and infrastructure throughout the IT and Business enterprise, using a zoned approach.  | Segment critical assets into higher protected zones to better protect critical university data assets. Provide a centralized logging solution enabling correlation of security issues across the enterprise. Provide a security event management solution (SEIM), improved threat detection and threat prevention capabilities to a deeper level of university IT infrastructure.  | Jul 2019 |
| ii. Form a cross-functional network, identity and security architecture group to recommend direction for the future of Penn State information infrastructure for approval by executive IT governance and ensure adoption across the university. | Ensure that privacy and security practices remain current and follow best practices in the industry. | Jul 2016 |
| iii. Resource and empower the "One Forest" project to replace legacy and siloed authentication systems. | Decommission all other secondary authentication realms where risk profiles allow. | Jul 2018 |
| iv. Improve physical security in our Data Centers and critical facilities (Telecom Building). | Improved access policies and physical monitoring capabilities. | Dec 2015 |
| c. Build out and sustain a professional IT security community and awareness program for all Penn State community members. | i. Leverage a commercial IT security professional development program to ensure that staff have necessary skills to manage infrastructure in a secure manner. | IT professionals have training necessary to respond to threats and security issues. | Jul 2016 |
| ii. Develop employee awareness and certification program to communicate, train and credential around data privacy and security policies and enforcement measures, impressing personal responsibility of data security. | A credentialing program has been instituted to test that all university employees understand their responsibility for the proper and secure use of university data assets. | Jul 2016 |

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| Diversity Strategies |
| ***Strategies*** | ***Tactics*** |
| **Action Step** | **Action Outcome** | **Target** |
| ***Challenge 1. Developing a Shared and Inclusive understanding of diversity across ITS*** |
| a. Seek expertise to strengthen skills in teambuilding, communication, and leadership. b. Expand programming on climate and diversity topics related to staff needs. | i. Distribute Climate and Diversity Survey to ITS staff. | Being informed about the concerns expressed by ITS employees regarding the need for improvement in ITS workplace climate and diversity. | March 2015 |
| ii. Analyze survey, communicate results to all ITS employees, hold focus groups to gain additional insights. | To inform ITS employees of the common concerns shared by co-workers and to gather input and support for designing solutions. |
| iii. Developing programming and skills training on climate and diversity-related topics based on survey outcomes. |
| ***Challenge 2. Creating a Welcoming Campus Climate*** |
| a. Provide ongoing support for University-wide initiatives. | i. Continue to support "Report Hate" website and similar websites. | Support university initiatives. | Ongoing |
| ***Challenge 3. Recruiting and Retaining a Diverse Student Body*** |
| a. Provide ongoing support for university-wide initiatives. | i. Continue to support "Report Hate" website and similar websites. | Support university initiatives. | Ongoing |
| ***Challenge 4. Recruiting and Retaining a Diverse Workforce*** |
| a. Support and contribute to the redesign of Penn State’s employment website, HR training, and performance management site on improving accessibility, functionality, and usability. | i. Work with HR developers to test their web sites and provide testing and consultation around accessibility.  | Identify accessibility issues with the site. | Ongoing |
| ***Challenge 5. Developing a Curriculum that Fosters U.S. and International Cultural Competencies - not applicable*** |
| ***Challenge 6. Diversifying University Leadership and Management*** |
| a. Benchmark (national data) the number of students who self-identify as minorities graduating with a Science, Technology, Engineering, Math (STEM) related degree, and compare with the number of ITS employees who self identify as minorities. | i. Develop reporting process for monitoring diversity in applicant pools for leadership positions. | Identify and communicate the percentages of diversity in our applicant pools compared to the relative availability. | Jan 2016 |
| b. Ensure all applicant pools have a diverse mix of qualified candidates for ITS leadership positions. | ii. Research and identify additional strategies and contract sources for attracting diverse candidates to ITS leadership positions. | Leverage a pool of additional sources to increase diversity in applicant pools. | Jun 2016 |
| ***Challenge 7. Coordinating Organizational Change to Support Diversity Goals*** |
| a. To make instructional materials accessible for student success. | i. Develop training courses on making Microsoft materials accessible. | Train instructors and faculty on how to create accessible course content. | Ongoing |
| ii. Perform testing on online course materials and consult with instructors to ensure accessibility of materials. | Perform testing on online course materials and consult with instructors to ensure accessibility of materials. | Ongoing |

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| Sustainability Strategies |
| ***Strategies*** | ***Tactics*** |
| **Action Step** | **Action Outcome** | **Target** |
| ***1. Operations*** |
| a. Create and fill the Sustainability Officer role.  | i. Identifying stakeholders that will inform and leverage the role once established. | The outcome is to establish a team to create the necessary framework for the Sustainability Officer Role, including skills and expectations. | Jul 2015 |
| ii. Create a plan and agendas for the meetings to gather input from stakeholders for the creation of the Sustainability Officer Role. | A framework for meetings to include an end date that will result in the creation of a job responsibilities worksheet type document for the Sustainability Officer Role. | Aug 2015 |
| iii. Formalize a working draft of the skills and expectations for the Sustainability Officer Role. | Leverage the artifact from the stakeholder meetings to formalize a draft of the Sustainability Officer Role. | Sep 2015 |
| iv. Vet the documented role through the appropriate offices. | Collaborate with appropriate offices across the university community in order to refine and adjust specifics for the Sustainability Officer Role. | Sep 2015 |
| v. Present finalized document and receive approvals from Vice Provost for IT. | Sustainability Officer role established and funded. | Sep 2015 |
| b. Create an Advisory Board to functionally support the Sustainability Officer role. | i. Reconvene the stakeholders that established the Sustainability Officer Role to discuss the creation of an advisory board. | Foster discussion to create a sustainability advisory board. | Oct 2015 |
| ii. Facilitate conversation to identify the appropriate representation on the advisory board. | Identified the membership of the board and established a communication plan to reach out to the members. | Nov 2015 |
| iii. Meet with the members of the advisory board to create a framework for how the board functions. | An established framework will be created to show how the advisory board and the Sustainability Officer Role will work together and expectations of the board. | Jan 2016 |
| c. Establish priorities and actions for the Advisory Board and the Sustainability Officer.  | i. The Sustainability Officer and the Advisory Board will meet to discuss how longevity can be established.  | An established plan and meeting frequency, for how the board and the sustainability officer role will interact and function moving forward.  | Mar 2016 |
| ii. The Sustainability Officer and the Advisory Board will have facilitated conversations to establish a 3-year plan.  | Documented 3-year plan for how, what, and why the advisory board and the role will collaborate.  | Jun 2016 |
| iii. The Sustainability Officer and the Advisory Board will have facilitated conversations to establish a 5-year plan.  | Documented 5-year plan for how, what, and why the advisory board and the role will collaborate.  | Dec 2016 |

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| ITS Strategy Alignment with University Themes, Supporting Strategies, and Initiatives |
| Goals/Strategies | Themes | Supporting Strategies | Initiatives |
| **Enable Learning** | Transforming Education and Access | Academic Infrastructure and SupportOutreach and EngagementBusiness Processes | ExcellenceStudent EngagementStudent Career SuccessTechnology and Curriculum Delivery |
| **Support Research and Innovation** | Leveraging our Digital Assets | Academic Infrastructure and SupportOutreach and EngagementBusiness Processes | Student EngagementTechnology and Curriculum Delivery |
| **Modernize Enterprise Systems and Practices**  | Leveraging our Digital Assets | Academic Infrastructure and SupportBusiness Processes | Diversity and DemographicsTechnology and Curriculum Delivery |
| **Advance IT Effectiveness**  | Managing and Stewarding our ResourcesLeveraging our Digital Assets | Academic Infrastructure and SupportBusiness Processes | ExcellenceTechnology and Curriculum Delivery |
| **Foster a Collaborative Culture and Community** | Exploring and Promoting our CulturesEnhancing our Health and Well-Being | Outreach and Engagement | Access and Affordability |
| **Align IT Security, Identity, Physical and Network Access**  | Managing and Stewarding our ResourcesLeveraging our Digital Assets | Academic Infrastructure and SupportBusiness Processes | ExcellenceTechnology and Curriculum Delivery |
| **Diversity** | Exploring and Promoting our CulturesEnhancing our Health and Well-Being | Outreach and Engagement | Diversity and Demographics |
| **Sustainability** | Managing and Stewarding our Resources | Business Processes | Access and Affordability |
| **Accessibility** | Leveraging our Digital Assets | Academic Infrastructure and Support | Access and AffordabilityTechnology and Curriculum Delivery |
| **Governance and Planning** | Managing and Stewarding our ResourcesLeveraging our Digital Assets | Business Processes | Technology and Curriculum Delivery |
| **Training** | Transforming Education and Access | Academic Infrastructure and SupportOutreach and Engagement | Student EngagementTechnology and Curriculum Delivery |