

Office of Information Technology Strategic Plan – Fiscal 2019 Status

Revised September 2018

Goal 1 – Teaching and Learning

Enhance information technology resources in support of effective faculty teaching and to ensure student success.

Objective 1.1: Teaching and Learning: OIT in collaboration with the appropriate university constituents will provide strategic direction and/or incorporate effective teaching and learning technologies

- **Strategy 1.1.a: Adobe Creativity Software:** Implement the new Adobe licensing model, providing access to university students, faculty and staff to install the Adobe Creative Cloud software on personal computers and provide University IT managers the tools and support to manage the software and related licenses on University-owned computers. (In-Progress)
- **Strategy 1.1.b: Elearning Enhancements:** Provide continual updates to the Elearning (Desire2Learn) system, introducing new teaching and learning tools to enhance the online course experience and provide the necessary support from the Office of Information Technology required to ensure successful use of those tools. (In-Progress)
- **Strategy 1.1.c: Graduate Assistant Workflow – (COMPLETED FY18)**
- **Strategy 1.1.d: Transformational Learning Technologies:** Investigate, develop and implement technologies that will enable strategic transformation of teaching and learning. Inform the University community of newly released technologies and provide support to ensure the successful use of those technologies within appropriate courses as requested by faculty and administration. (In-Progress)

Objective 1.2: Classroom and Audio/Visual Technology: OIT will provide a high standard of classroom technology in all general purpose classrooms scheduled by the registrar.

- **Strategy 1.2.a: Classroom Technology Advancement:** Provide industry-leading classroom audio/visual technology to enhance teaching, learning, collaboration and communication in the classroom. Maintain and enhance existing classroom technology spaces to ensure the latest technology is available and supported. (In-Progress)
- **Strategy 1.2.b: Audio/Visual Integration Services:** Provide industry-leading audio/visual integration services to include the design, programming, development and implementation of conference rooms, digital signage, collaborative work spaces and other environments to enhance collaboration and communication. (In-Progress)

Objective 1.3: Computing Laboratory Services: OIT is responsible for providing IT services to students, faculty, and staff, through the use of a help desk, faculty instructional laboratory, and student instructional laboratories.

- **Strategy 1.3.a: Student Printing Services:** Develop new options to enable students to print from computer lab workstations, personal computers, mobile devices and via other means. (COMPLETED FY18)
- **Strategy 1.3.b: Student Collaboration Workspaces:** Develop collaborative work spaces within computer labs with audio/visual technology and furniture to provide students with the

resources they need to perform group-based academic activities in close proximity to technology resources and support. (COMPLETED FY18)

Objective 1.4: Recruitment and Retention: OIT will be forward thinking in delivery of technologies and media to advance student recruitment and enhance student retention

- **Strategy 1.4.a – University Libraries Master Planning:** Contribute to the strategic planning process and provide project management resources to ensure the successful implementation of information technology requirements for a "Library of the Future" (In-Progress)
- **Strategy 1.4.b – Enrollment Management CRM:** Provide project management advisory support and manage all efforts required of the Office of Information Technology to satisfy the intent of the CRM implementation projects as defined by the following intent: ----- The Office of Enrollment Management will implement an enterprise platform, starting in February 2017, completing June 2018, providing a unified and coordinated approach for institutional driven communications, which leads to robust prospect cohorts that support institutional enrollment goals. The coordination of communications through this platform should improve student success and, eventually, the development of life long affiliations with our graduates. (In-Progress)
- **Strategy 1.4.c – NextGen Email and Collaboration:** Develop courses of action and projects to manage the transition of remaining on-premises Email and Microsoft collaboration technologies to the cloud, the enhancement of existing Office 365 services, the implementation of new Office 365 services and the implementation of any Office 365 and IDM technologies required to support the WMU Unified Communication Strategy. (In-Progress)
- **Strategy 1.4.d – eSports Transformational Initiative:** Submit a proposal to the President's transformational initiative project for eSports @ WMU to institutionalize eSports as a club sport and implement the appropriate computer and audio/visual technology required by the assigned project management team. (In-Progress)
- **Strategy 1.4.e – Early Alert Technology for At-Risk Students:** Implement and utilize predictive analysis to identify and help at-risk students succeed in a set of core English and STEM courses in the College of Arts and Sciences. (COMPLETED FY18)

Goal 2 – Reliable and Secure IT Infrastructure

Enhance information technology resources in support of effective faculty teaching and to ensure student success.

Objective 2.1 – Enterprise Systems Support: OIT will provide secure and reliable system administration and database administration for all enterprise systems which includes, but not limited to, student information system, financial systems, human resources systems, and other core services.

- **Strategy 2.1.a – Disaster Recovery and Business Continuity:** Continually improve and maintain the disaster recovery and business continuity technology and processes to ensure that, in the case of a catastrophic event, the University's critical databases and information systems are not lost and will be operational within an established time period after such an event. (In-Progress)
- **Strategy 2.1.b – Deprecation of redundant and irrelevant systems:** Identify aging systems that are no longer used or may be replaced by new, more relevant technologies and decommission them, ensuring efficient and effective use of human, fiscal and technical resources. (In-Progress)
- **Strategy 2.1.c – Virtual Infrastructure:** Develop the Virtual Server infrastructure and migrate existing physical servers in order to increase performance, flexibility, scalability and ease of management of University enterprise and unit-level applications. (In-Progress)

- **Strategy 2.1.d – Enterprise Systems Architecture:** Develop enterprise information systems architecture and continually improve existing technology architecture to ensure reliability, availability, performance and service-level of dependent applications and databases. (In-Progress)
- **Strategy 2.1.e – Enterprise Data:** Ensure the reliability and availability of university enterprise data warehouse, operational data stores, databases and technology resources through continual improvement and design. (In-Progress)
- **Strategy 2.1.f – Data Analytics Technology:** Continually improve and evaluate the University's data analytics and reporting technologies to support the advancement of institutional research and business intelligence strategies. (Delayed/On-Hold)

Objective 2.2: Enterprise Application Support: OIT will provide strategic direction to incorporate all enterprise applications, develop long and short-term strategies and goals, identify and deploy best practices

- **Strategy 2.2.a – Student Information and Support Systems:** Integrate and support the student information systems (SIS) technologies to ensure the successful management of student data resulting in information to support student success including recruitment, admission, and delivery of degree education, to successful graduation. (In-Progress)
- **Strategy 2.2.b – Financial Systems:** Integrate and support the enterprise financials systems to ensure the successful management of enterprise resource data resulting in information to support fiscal success throughout the institution. (In-Progress)
- **Strategy 2.2.c – Travel Authorization Enhancement:** Support the implementation and use of the PeopleSoft Travel Authorization system and self-service user interface. (In-Progress)
- **Strategy 2.2.d – Contract Management System:** Provide project management advisory support and coordinate the human and technical resources required to support the implementation of a new University-wide contract management system per the requirements of General Counsel, Business Services and Purchasing departments. (In-Progress)
- **Strategy 2.2.e – Development and Alumni Relations CRM:** Identify integration points between the Development and Alumni Relations Constituent Relationship Management System (CRM) and OIT-supported systems and work with the project manager from that unit to plan, schedule and implement deliverables to support the project's requirements and strategic goals. (In-Progress)
- **Strategy 2.2.f – Human Resource Systems:** Integrate and support the enterprise human resource systems to ensure the successful management of enterprise human resource data to support people operations throughout the institution. (In-Progress)

Objective 2.3 – Operations, Work Group and Distributed Computing Services: OIT will provide individual work groups (units, departments, colleges) services such as housing servers, virtual servers, and other technologies in a secure environment ensuring regular backup and recovery of data, on a cost-recovery basis

- **Strategy 2.3.a – Infrastructure as a Service to Distributed IT operations:** Provide individual IT work groups (units, departments, colleges) centralized infrastructure services on a cost-recovery basis, ensuring reliability, scalability, recoverability and security. (In-Progress)

Objective 2.4 – Voice, Video and Data Network Support: OIT will ensure that the voice, video, and data networks are secure and reliable, set standards for the systems, and lead the University in the adoption of distributed network management solutions.

- **Strategy 2.4.a – Network Access Control and Security:** Ensure the security of all University networks through industry standard processes, protocols and technology including access control that ensures only University affiliates have access to the networks and systems in which they are permitted. (In-Progress)
- **Strategy 2.4.b – Wired Network and Network Core Improvements:** Improve the speed, availability and reliability of the University's wired network and core network infrastructure. (In-Progress)
- **Strategy 2.4.c – Internet Phone (Voice over IP):** Transition all University analog telephones and devices to network-connected (Voice Over IP) protocols to eliminate dependency on aging telecom wiring and infrastructure and enhance the functionality of desk phones including video calling and enhanced feature sets. (In-Progress)
- **Strategy 2.4.d – Telecommunications Service and Billing Systems:** Upgrade the telecommunications service tracking and billing system to improve customer service requests and communications. (In-Progress)
- **Strategy 2.4.e – Wireless network expansion and improvements:** Improve the speed, availability and reliability of the University's wireless network (In-Progress)
- **Strategy 2.4.f – Network Architecture and Design:** Develop and improve the overall architecture and design of the University network system to improve speed, stability, access, security and scalability to enable success of all stakeholders including students, faculty, staff, guests, affiliates and other users of the network. (In-Progress)
- **Strategy 2.4.g – Voicemail Migration and Enhancement:** Migrate the current University voicemail system to Cisco Unity Voicemail to provide enhanced features and access to voicemail through computers, mobile devices and email. Establish technical framework to prepare for a comprehensive Unified Communications strategy. (In-Progress)
- **Strategy 2.4.h – Internet TV (IPTV):** Establish a new campus educable provider that will not only provide service over existing standard cable TV connections but introduce enhanced internet TV options providing the ability to watch University TV services on devices such as computers and mobile phones. (In-Progress)
- **Strategy 2.4.i – Long Distance Migration:** Move all University long distance services from CenturyLink to Windstream and move billing services to the University's Pinnacle telecommunications management system to improve service and cost effectiveness. (In-Progress)
- **Strategy 2.4.j – Unified Communications Strategic Plan:** Develop a strategic plan and execute selected projects to deliver a unified communication service platform which will bridge phone, voicemail, email and video conferencing in to a streamlined user interface resulting in increased functionality and access. (In-Progress)
- **Strategy 2.4.k – E-911 and County Dispatch:** Provide the technical telecommunications support and systems modifications to satisfy the requirements of the Kalamazoo county centralized dispatch project. (In-Progress)

Objective 2.5 – Media Services: OIT will ensure that media service technologies are secure and reliable, set standards for the media support systems, and facilitate as well as enhance the media delivery means for the campus community

- **Strategy 2.5.a – Multimedia Content and Production Development:** Provide high quality, high definition multimedia videos and productions to support teaching, learning and university

marketing endeavors, strengthening the University brand and quality of delivery of educational content. (Ongoing)

- **Strategy 2.5.b – Innovative fine arts performance technology:** Provide innovative fine arts performance technology and development services to enhance the educational experiences and quality of programs provided by the College of Fine Arts. (Ongoing)

Objective 2.6 – Information Security Policies, Standards, and Support Administration: OIT, in collaboration with the Campus Information Security committee, will ensure that information security policies are developed in compliance with audit and regulatory standards. OIT will establish, communicate, and enforce standards, policies, and business practices for the security of University information.

- **Strategy 2.6.a – Information Security Policies, Processes and Procedures:** Develop information security policies and the necessary processes, procedures and support to protect University data and personal information from both internal and external security threats. (In-Progress)
- **Strategy 2.6.b – Proactive Security Compliance and Enforcement:** Proactively engage in information and systems security evaluations and enforce necessary policies to ensure compliance and integrity of security measures. (In-Progress)
- **Strategy 2.6.c – Cyber Security Range:** In collaboration with Merit, implement a Cyber Security Range Hub in Battle Creek to provide an environment for teaching, testing and training cyber security professionals. (COMPLETED FY18)
- **Strategy 2.6.d – Multi-Factor Authentication and Enhancements:** Implement Multi-factor authentication (MFA) technology, a method of confirming a user's claimed identity in which a user is granted access only after successfully presenting 2 or more pieces of evidence (or factors) including BroncoNetID password, to provide additional access security to the University's institutional data and personal information. (In-Progress)
 - **Project:** Duo 2-Factor Authentication
- **Strategy 2.6.e – Alumni Access to University Computing:** Provide alumni with continued access to University computing resources, such as email, to enable continuing engagement with the University. (In-Progress)
- **Strategy 2.6.f – Security Education and Awareness:** Provide training and communications to the University community to enhance the understanding of security threats and proactive measures that individuals may take to protect their personal information and University data. (In-Progress)
 - **Project:** Abuse & Phishing Remediation Process (In-Progress)
 - **Project:** Central Authentication Service (CAS) login page enhancement (COMPLETED FY18)
 - **Ongoing Service Operation:** Securing the Human Training for employees and students
- **Strategy 2.6.g – Identity Management:** Develop and enhance identity management processes and technology, which identify, authenticate and authorize individuals or groups of people to access University applications, systems or networks based on roles and rights as identified in the University student and human resource management systems. (In-Progress)
 - **Project:** Microsoft Identity Manager (MIM) Implementation
- **Strategy 2.6.h – Mobile Device Management and Security:** Implement technologies to manage the security and recover-ability mobile devices, including cell phones and tablets, to reduce the likelihood of loss or theft of University and personal data.
 - **Project:** Microsoft Office 365 Mobile Device Management tools (MAP Program)

Objective 2.7 – Information Security Breach Response: OIT will respond to security breaches according to approved information security policies.

- No strategies defined

Objective 2.8 – Requests for Computing Services and Customer Relations Communications: OIT will provide responsive service and effective communication to the university community. This includes responses to help requests, reports of systems not functioning properly, and service requests through adoption of a Technology Service Management system

- **Strategy 2.8.a – IT Service Management:** Implement and Information Technology Service Management (ITSM) system and associated business processes to provide a single method for tracking and delivering requests for computing support and IT human resource contributions. (In-Progress)
 - **Project:** ITDirect Work Order Implementation for OIT (COMPLETED FY18)
 - **Project:** ITDirect Work Order Implementation for Unit-IT. (In-Progress)
 - **Project:** ITDirect Change Management Implementation for OIT (In-Progress)
 - **Ongoing Service Operation:** ITDirect Project and Service Management
- **Strategy 2.8.b – Customer Support Services:** Enhance the forward-facing IT customer support services of the Office of Information Technology to increase availability, access and communications to the University community. (In-Progress)
 - **Project:** Help Desk Relocation (COMPLETED FY18)
- **Strategy 2.8.c – Strategic Communications:** Provide strategic communications to appropriate stakeholder groups regarding the availability of IT services and the progress of key strategic projects and developments that impact the entire university, ensuring awareness of and direction to applicable resources and support. (In-Progress)
- **Strategy 2.8.d – IT Services Communications (NEW) :**

Goal 3 – Research and Emerging Technologies

Support the use of information technology resources to enable investigation of emerging technologies and innovative research.

Objective 3.1 – Support for Technology in Research: OIT in collaboration with the appropriate university constituents will provide strategic direction to incorporate effective research technologies that are used across disciplines and colleges

- **Strategy 3.1.a – OVPR Research Systems Support and Integration:** OIT will provide strategic direction to incorporate collaborative systems that contribute to interdisciplinary and inter-institutional research. (In-Progress)
 - **Project:** OVRP Bucksheet Process integration with OIT (In-Progress)

Objective 3.2 – Research of Collaborative Systems: OIT will provide strategic direction to incorporate collaborative systems that contribute to interdisciplinary and inter-institutional research.

- **Strategy 3.2.a – Faculty Activity Reporting System – IT Support:** Provide project advisory support and manage the information technology deliverables to support the implementation of the Faculty Activity Reporting System (FARS).
 - **Project:** Faculty Activity Reporting System implementation (COMPLETED FY17)

Objective 3.3 – Research Strategic Business Plan - OIT will develop, in collaboration with appropriate offices and bodies, a strategic business plan for IT support of research

- **Strategy 3.3.a – Research Strategic Business Plan:** Partner with the Office of the Vice President for Research to help establish research related technology standards and policies. (In-Progress)
- **Strategy 3.3.b – Innovative Research in Technology:** Develop new technology services and facilities to provide students, faculty and staff access to innovative technology to support research, discovery and creative works that may not otherwise be available from other units. (In-Progress)

Objective 3.4 – Grant Support and Partnerships: OIT will create partnerships with faculty, departments, colleges, and vendors to seek shared goals regarding technology research, innovative implementation, and grant development support

- **Strategy 3.4.a – Grants Time and Effort Tracking:** Implement the PeopleSoft Financials data integration requirements of the Time and Effort System in order to process payroll specific journals within the general ledger and additional data exports and reports as necessary. (In-Progress)
 - **Project:** Grants Time and Effort for PeopleSoft Financials (In-Progress)

Objective 3.5 – Emerging Technologies: OIT will Investigate emerging technologies and adequately test these solutions for possible inclusion into the IT teaching, service, and support operations of the University

- **Strategy 3.5.a – 3D Printing Service:** Provide new 3D printing services in the University Computing Center lab for all University affiliates to support the investigation, experimentation and application of 3D printed objects within an academic, research and personal context. (COMPLETED FY18).

Goal 4 – Inclusive and Accessible IT Services

In partnership with university constituents enhance the structure, policies, and procedures with a client focus that emphasizes reliability, accountability, flexibility, and enables accessibility by members of the university community regardless of disability.

Objective 4.1 - Individuals with Limitations Computing Facilities Services & Support: OIT will provision computer facilities for those with vision limitations and the need for other assisted computing technology. In conjunction with functional users, OIT will facilitate testing of changes to software interfaces to ensure that they can be effectively used by individuals who have vision and other limitations

- **Strategy 4.1.a – Web Accessibility:** Provide technology resources and support to ensure equitable access to information on University web pages and web-based systems for persons with visual impairments. (Delayed/On-Hold – Waiting for University Relations)

Objective 4.2 – Project Management Standards: OIT will provide effective project management services adhering to established standards and guideline

- **Strategy 4.2.a – Project Management Resources and Support:** Provide project management and planning resources and support internally in OIT and to distributed unit-level IT support staff to increase effectiveness of the selection and implementation of information technology services. (In-Progress)
- **Strategy 4.3.b – Project Management System:** Integrate project portfolio management business processes, workflows and information system, using the ITDirect (ServiceDesk Plus) project

module, to provide a single source of information about all OIT projects including schedules, tasks, human resource obligations and other critical tracking and reporting information.

- **Project:** ITDirect Project Management Implementation for OIT (COMPLETED FY17)
- **Ongoing Service Operation:** ITDirect Project Portfolio Management (PPM) System

Objective 4.3 – Governance, Architecture and Standards: OIT will facilitate all functional governance committees in order to optimize efficiency, effectiveness and support of the IT infrastructure of the university

- **Strategy 4.3.a – IT Shared Governance:** Facilitate all functional governance committees in order to optimize efficiency, effectiveness and support of the IT infrastructure of the university and implement new governance committees as necessary to provide oversight of new IT services. (In-Progress)
 - **Project:** University IT Strategic Master Plan (Starting Fall 2018)

Goal 5 – Sustainable IT Services

Ensure resource conservation and sound fiscal planning for information technology infrastructure and services across the university.

Objective 5.1 – Comprehensive Strategic Planning: OIT will develop a comprehensive strategic plan to maximize the use of technology in decision making with particular attention paid to information across the unit

- **Strategy 5.1.a – Capital Project Planning and Support:** Integrate information technology support in the planning, execution and completion of University capital projects to ensure new physical spaces and buildings are outfitted with technology that is appropriately sized, specified and sustainable over time. (Ongoing)
 - **Project:** South Neighborhood Master Planning (In-Progress)
 - **Project:** Student Services Building Master Planning (In-Progress)
 - **Project:** University Libraries Master Planning (Delayed/On-Hold)
 - **Project:** Ernest Wilbur Building Renovation (Completed FY18)
 - **Project:** Battle Creek Aviation Renovation (In-Progress)
 - **Project:** Central Kohrman Product Design Renovation (In-Progress)
 - **Project:** eSports Arena/Little Theater (In-Progress)
- **Strategy 5.1.b – University IT Strategic Master Plan:** Develop a University-wide information services and technology strategic master plan that reflects a shared, unified vision and goals to guide and inform all divisional strategic plans. Establish long-term planning and shared governance process for all information technology services to support sustainability, continual improvement and accountability to the University community (In-Progress)

Objective 5.2 - Budget Management: OIT will participate in divisional project planning and development while tracking budget and providing follow-up to achieve project deliverables.

- **Strategy 5.2.a – Strategic Resource Management:** Continually assess budgets, technology lifecycle planning and annual maintenance costs and identify measures to save costs and ensure sustainability while continuing to delivery high-quality information technology services. (Ongoing)
- **Strategy 5.2.b – Staff Progression and Succession Planning:** Develop progression models to provide a track for OIT staff to be promoted within their job titles and maintain competitive pay

and benefits advantage within the information technology industry, resulting in higher levels of employee satisfaction and to reduce attrition. (In-Progress)

- **Strategy 5.2.c – Strategic Personnel Administration and Optimization:** Continually assess and evaluate the staffing model and organization of personnel to align with University strategic priorities and the changing technology industry. (Ongoing)

Objective 5.3 – Student Technology Fee Budget: OIT will manage the student technology fee budget to ensure that those funds are expended in support of student learning, research, and service, including support of centralized services (such as the UCC and BCC computer labs), and decentralized services (such as the college computing labs).

- **Strategy 5.3.a – Consolidate support services staff to re-allocate funds:** Consolidate student-employment areas, including the Help Desk and UCC Lab to free financial resources to be allocated to enhance other services. (In-Progress)
 - **Project:** Help Desk Relocation (Completed FY18)
 - **Project:** Telecommunication Service Process Optimization (In-Progress)

Objective 5.4 – Energy Conservation: OIT will adhere to energy conservation standards in the centralized secure computing facility

- **Strategy 5.4.a – Reduce Data Center Energy Use:** Reduce the energy consumption of the University Computing Center data center by optimizing the use of lighting, operator computer use, and presence of operator personnel.

Objective 5.5 – Resource Conservation: OIT will apply physical resource (such as paper) conservation in centralized computing laboratories

- **Strategy 5.5.a – Student Printing Service Waste Reduction:** Continually implement technologies and practices to reduce the amount of paper and toner waste in student computer labs. (In-Progress)

Objective 5.6 – Cost Savings: OIT will seek cost savings through, but not limited to, planned purchasing cycles and coordinated IT procurement.

- **Strategy 5.6.a – Contract Price Reduction:** Negotiate contract price reductions upon bid and renewal for new and existing IT services, reducing the impact of University budget reductions. (In-Progress)

Goal 6 – Organizational Climate

Encourage and support an organizational climate of inclusion, engagement and cohesion to cultivate a culture of learning, achievement, collaboration, service, respect and health.

Objective 6.1 – Support Staff learning and education:

- **Strategy 6.1.a -Professional Development:** Provide opportunities for full time and student staff to develop their knowledge, skills, and abilities to contribute to their area of work and/or academic curriculum. (In-Progress)

Objective 6.2 – Highlight personal and organizational innovations and achievements:

- **Strategy 6.2.a – Mission Wall:** Implement a Mission Wall as a first visual point of contact to reflect OIT's identity, mission and vision. It will be a visually appealing point of pride for OIT staff accomplishments, projects, and services that will be visually appealing. (Completed FY17)

Objective 6.3 – Promote OIT staff engagement, organizational awareness, collaboration and pride:

- **Strategy 6.3.a – Community Outreach:** Engage the external University community through outreach projects that enhance the connectivity of local IT educational needs to the operations of the Office of Information Technology and the academic programs in which prospective students may enroll to achieve their long-term educational goals. (In-Progress)
- **Strategy 6.3.b – University Constituent Outreach:** Engage with the University community to support the student success, diversity, inclusion, accessibility and other shared, strategic goals. (In-Progress)
- **Strategy 6.3.c – University IT Staff Engagement:** Engage University IT staff, including both OIT and Unit-IT, to provide opportunities for positive relationship building, shared decision making and collaborative efforts. (In-Progress)

Objective 6.4 – Support and promote health and wellness of OIT staff:

- **Strategy 6.4.a – Accessible Vending:** Provide accessible food and drink options through vending services to patrons of the public University Computing Center lab and collaboration spaces to provide a welcoming environment for long-term visits. (Completed FY18)
- **Strategy 6.4.b – Wellness Facilities and Resources (NEW):**

Objective 6.5 – OIT Brand Identity

- **Strategy 6.5.a – IT Web Site and Online Resources:** Transform the IT web sites and online resources to provide service-oriented information that guides University constituents to the appropriate resources to learn about IT services, request service offerings and obtain self-help information. (In-Progress)