Proposed Indiana University of Pennsylvania College of Osteopathic Medicine (Proposed IUPCOM—Candidate Status—Seeking Accreditation)

COCA Pre-Accreditation Element 4.3-1: Information Technology
Pre-Accreditation Submission 4.3-1: Information Technology Strategic Plan

Introduction

The idea to create the proposed College of Osteopathic Medicine at Indiana University of Pennsylvania (proposed IUPCOM) was conceived in 2022 as a way to not only increase access to osteopathic medical care in southwestern Pennsylvania, the greater region, country, and the world, but also to bolster enrollment in PA state schools while providing students access to a medical education who otherwise may not have considered medical school for their graduate studies. Information technology (IT) is an integral part of the learning process in any college, but particularly in a college of osteopathic medicine. This strategic plan was developed by the founding team of leaders of the proposed IUPCOM and addresses key strategic planning initiatives, objectives, and principles found core to IT Services, and the founding IUPCOM team. The overall goal of implementing this plan is to support both the mission, vision, values, and goals and objectives of the proposed IUPCOM, as well as underly the attainment of the *Programmatic Goals and Objectives* set forth in the osteopathic medical program. The central IT Services organization will provide leadership, project management, and operational support and cybersecurity best practices to the IUPCOM just as it currently does to the rest of the university community. This will result in seamless integration with appropriate systems and will provide students, faculty, and staff with outstanding resources and support with all IT-related matters.

This document reflects a significant amount of work from both the IUPCOM founding team as well as leadership from the IUP IT Services department. As the proposed IUPCOM grows, and additional staff, faculty, and ultimately, students, are added, we will involve all proposed IUPCOM stakeholders in the assessment of information technology services, allowing strong reciprocal input into how IT plays out in the proposed IUPCOM and continually striving to incrementally improve the faculty, staff, and student experience within the proposed IUPCOM.

Information Technology Vision Statement

The vision of IT services at the proposed IUPCOM is to continue to adhere to its methodology for implementing its mission which are as follows:

- Ensure that IT Services continually aligns its resources with evolving university goals while deploying those resources in an efficient, transparent manner.
- Promote the use of information technology as a university-wide strategic asset.
- Empower members of the university community by providing a clear process for obtaining support from IT Services guided by a concise decision process.
- Retain compliance with Pennsylvania State System of Higher Education IT Governance requirements.
- Retain compliance with university IT-related policies and procedures with emphasis on providing confidentiality, integrity, and availability of information within IT applications.

This methodology will continue to promote supporting students, faculty, staff, and other related parties to allow for a transformational learning experience, implementation of world-class

research programs, and support implementation of the latest technologies at the proposed IUPCOM campus. In addition, IUPCOM will also advocate for the latest and/or improved technologies at all sites at which education is delivered (e.g., hospitals, clinics, clinical rotation sites, etc.). This will include ensuring WiFi access at all sites as well as access to the proposed IUPCOM network remotely to allow for a seamless experience with IT resources, whether on or off campus. This vision supports the development of a medical school of the future with a customer-service oriented approach underlying support of the mission of the proposed COM, fostering a culture of technological innovation both in pedagogy and in practice.

IT Services Strategic Goals and Objectives (Initiatives) Related to IUPCOM

1. Optimize the educational experience through effective integration of educational and clinical technology by internal and external partners
2. Develop cutting-edge on campus facilities that support the IT needs of the medical student and faculty members of the future, looking ahead and anticipating trends and changes in medical computing.
3. Provide access to all non-physical resources which are available on campus to students, faculty and other stakeholders from anywhere they are located (e.g., their hospital of employment where students rotate from the proposed IUPCOM) in an easy-to-access fashion available via multiple end-user devices, i.e., desktop computers, laptops, tablets, and other mobile devices.
4. Continue to focus on being a cloud-first organization with enhanced security and backup of critical educational and research data.
5. Provide students with hardware and software, as appropriate, which is secure and protects the privacy of the student, and any patients the student may be treating under direct supervision, staff, researchers, and other stakeholders.
6. Carefully research all IT hardware and software acquisitions with a focus on not only user efficiency, but also safety, data encryption (where appropriate), and easy transferability of information.
7. Implement a learning management system (LMS) and student information management system (SIS) that meet the unique needs of an osteopathic medical school, utilizing existing IUP infrastructure, with Brightspace/D2L as LMS and Ellucian Banner (OneSIS) as SIS.
8. Implement and track mandatory training sessions (currently via KnowBe4 software by Vector Solutions) and protocols that ensure that all faculty, staff and students are knowledgeable of IT related practices, such as phishing, security best practices, etc.
9. Provide one-on-one support for IT issues with a short turn-around time for all students, faculty and staff, including those off campus at proposed IUPCOM affiliated sites. This support can be delivered in face-to-face and remote format using IUP's ZOOM platform service depending upon the unique needs of the situation.
10. Ensure that all students, faculty, and staff can access WiFi on all devices from wherever they are located.
11. Teach (e.g., include in the core curriculum) the use of and advances in clinical care and research (basic and clinical) technologies.
12. Continually assess IT services, with input from all students, faculty, and staff at a regular interval, at minimum through the yearly University survey, and incrementally explore and implement improvements identified as being in line with the proposed IUPCOM's mission by the needs assessment.

13. Ensure that all students, faculty, and staff have access to real-time support during all learning activities including, but not limited to, classroom, lecture, small group, SIM, and team-based learning.
14. Ensure that all faculty, staff, and students have access to the IT Help Desk both on and off campus for assistance with technology issues.

Metrics and Key Actions

1. Develop a facility plan that supports the implementation of the above initiatives, both on- and off-campus at affiliated clinical sites, with a goal for implementation by the ***COCA Pre-Operational Site Visit*** estimated to be in January of 2027.

   Critical IT Elements of the proposed IUPCOM facilities include:

   - At least gigabit internet access to every osteopathic medical student at each seat on campus
   - Fast, consistent, and secure WiFi access across campus, including outdoor spaces
   - Room scheduling software which is accessible and easy to use
   - Dedicated AV space for lecture halls, simulation, and standardized patient encounter spaces
   - Ability for faculty, students and others to share screen onto every display in the various facilities
   - Power access at student seating areas
   - Dedicated IT support devoted to proposed COM students, faculty, and staff, at all locations, both on- and off-campus
   - Classrooms and auditoria to support varying media types and student learners with accommodations or related capacities
   - Support security development for IT products used by proposed COM faculty, staff, and students, particularly where any patient-sensitive data may be stored or transmitted
   - Simulation and standardized patient encounter spaces with multi-camera set up, automated recording and scheduling, and access to a mock electronic medical/health record for documentation
   - Access to virtual anatomy resources such as virtual anatomy tables, virtual reality headsets, and 3D anatomy software
   - Screens that easily sync to devices in every small group and case-based learning room

2. Identify and implement (or expand) a learning management system and a student information system, as well as additional innovative technologies (e.g., simulation and standardized patient software and technologies) from vendors with a focus on software-as-a-service solutions for users with privacy as a core element, all in support of our curriculum by 2026. **Table 1** highlights several of these elements.

Table 1. IT Services and Technology Solutions	
Service Area	**Technology Solution**
Collaboration/Productivity Suite	Microsoft Teams
Learning Management System (LMS)	D2L/Brightspace
Student Information System (SIS)	Ellucian Banner
Student Advising and Success Platform	Ellucian CRM Advise/IUP Advise Platform
Website	Cascade Web Content Management System
Student Admissions/Application Service	• WebAdmit via AACOM • Slate (pre-acceptance IUP/PASSHE pathways)
Lecture Capture	ZOOM
AV Control Systems	Crestron and Extron Equipment
Simulation/OSCE Center Management	Oxford Medical Systems – VR Simulations
Test Administration Software	• ExamSoft • D2L • Gravic Remark Test Grading
Test Proctoring	Honorlock
Data Reporting Platform	EVisions Argos Platform (plug-in for Ellucian SIS)
Device Management	Windows Defender and Microsoft Intune
Online Compliance Training	Vector Solutions

3. Provide a list of hardware and software device options for students, faculty, and staff (see Table 2, below).

Table 2. Device Options for Students and Faculty/Staff	
User Type	**Device Option(s)**
Student	A laptop or personal computing device for studies is required for all students in the college of osteopathic medicine. Students can purchase whatever device they wish for teaching and learning purposes which must meet University minimum computing standards. IUP has discounts and purchase options from Dell and Apple: https://www.iup.edu/itsupportcenter/get-support/student-hardware-support/index.html Additional student resources:

	[Technology Guide for Students - IUP](#)
Faculty and Staff	A standard OS imaged device for each faculty and staff member will be provided, per IUP University Technology polices and procedures. For IUPCOM-housed faculty, faculty will be provided, per their preference, either: • Dell/PC operating system—laptop with docking station • Apple MacOS devices–laptop with docking station All computing and operational devices provided to IUP faculty and staff remain the property of IUP.

4. Provide software and/or ongoing education in support of cyber security and best practices in IT stewardship and use. Table 3 highlights these solutions.

Table 3. Ongoing IT Education Solutions	
Element	**Education or Software Implemented**
Multi-Factor Authentication (MFA)	Microsoft Authenticator
National Cybersecurity Awareness Month (NCSAM)	Month long activities every October to remind all university constituents of the importance of safe computing and other cybersecurity best practices.
Regular Cybersecurity "Best Practice" activities throughout the year (typically one per month)	Email, Videos, Website references, etc.
IT Help Desk	Resource for students, faculty, and staff with technologically-related questions. See Page 14 of this document for additional Help Desk information.

5. Implement innovative pilot programs and technology-based webinars by 2027 relative to preceptor/faculty development and clinical education outreach, including the development of Continuing Medical Education (CME) delivery mechanisms.

6. Ensure COM Representation of students, faculty, and staff regarding IT-related issues at the University level
   a. IUP has a faculty IT-related committee that meets regularly to discuss IT related policy and topics. The committee is called the Academic Computing Policy

Advisory Council (ACPAC). ACPAC meets monthly during the academic year. A subcommittee of ACPAC is the Student Technology Subcommittee (STS). This subcommittee consists of student representatives and other members of ACPAC. One of their responsibilities is to help assess information technology at IUP. Part of the assessment activities is to send a technology survey to students every spring and then discuss the results.

b. One faculty and one staff (one from pre-clinical and one from clinical education years), and two student members (one from pre-clinical and one from clinical education years), will be added to this body from the COM. See response to *Pre-Accreditation Element 4.3-2* for more information on these positions and the committees.

7. WiFi access will be available both on the COM campus as well as at all core and required rotation sites.
   a. To verify that WiFi access is available at all core and required rotation sites, a survey was sent to each core and required clinical rotation site on 1/13/2025 asking if WiFi is available at the site, and the results of that survey are shown in the below table. In short, all sites at which students will rotate for core and required clinical rotations have verified that WiFi access is available to all proposed IUPCOM students. This is outlined in Table 4, below.

Table 4. WiFi Access at Each Core and Required Rotation Site	
Core or Required Rotation Site	**Is WiFi Available at your site?**
Alternative Community Resource Program	yes
Armstrong County Memorial Hospital	yes
Broad Top Area Medical Center	yes
Chan Soon-Shiong Medical Center at Windber	yes
Clarks Summit State Hospital	yes
Clarion Psychiatric Center	yes
Conemaugh Memorial Medical Center	yes
Conemaugh Meyersdale Medical Center	yes
Conemaugh Miners Medical Center	yes
Conemaugh Nason Medical Center	yes
Hyndman Area Health Center	yes
Indiana Regional Medical Center	yes
Joe Lamantia, DO	yes
Main Line Health	yes
Nulton Diagnostic and Treatment Center, PC	yes
Pediatric Care Specialists	yes

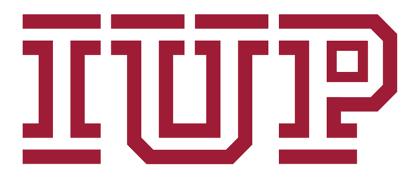|	
Penn Highlands Dubois	yes
Primary Health Network	yes
Punxsutawney Area Hospital	yes
Torrance State Hospital	yes
Warren State Hospital	yes
Wayne Memorial Hospital	yes
Wayne Memorial Community Health Centers	yes

Bandwidth Strength

IUP has two Internet service providers that provide dedicated circuits for Internet access (transit and bandwidth). The current providers are FirstLight and Lumen. These providers are Tier 1 or connect directly to Tier 1 networks. Both circuits are utilized simultaneously and provide high availability. If one of the circuits would go down, Internet access would still be available. Further, the physical demarcation points of the FirstLight and Lumen circuits are on opposite sides of the campus to reduce risk of service loss in case of a localized disaster (fiber damage, etc.). IUP's primary Internet connection is FirstLight, which is a 10 Gbps fiber circuit with a base bandwidth of 6 Gbps that is burstable to 10 Gbps. IUP's secondary Internet connection is Lumen, which is a 10 Gbps fiber circuit with a base bandwidth of 1 Gbps that is burstable to 10 Gbps. The bandwidth for both providers is symmetric, where inbound and outbound speeds are the same. IUP's two Internet service providers provide Internet access for all of IUP's main campus (administrative, academic, and residence buildings) as well as branch campuses that have dedicated circuits back to main campus. General outbound Internet access is used by approximately 10,000 faculty, staff, and students on the campus networks (wired and wireless LANs). Inbound Internet access is used by many services hosted in IUP datacenters (web servers, VPN, etc).

APPENDICES

Appendix 1: IT Services Executive Overview (Page 9)

Appendix 2: University IT Services Organizational Vision Plan (Page 16)

Information Technology Services

Executive Overview

2025

Submitted to the Commission on Osteopathic College Accreditation (COCA)

Introduction

Information Technology (IT) Services operates directly in support of IUP's university-wide strategic plan, developing an annual list of goals that explicitly references the plan as opposed to utilizing a stand-alone IT strategic plan concept. This methodology permits IT Services to deploy resources to meet the evolving needs of the university as it fulfills the larger mission. IT Services' enduring mission is to provide a modern, mainstream IT environment to the university community in a manner that is both flexible and versatile while delivering services in a timely, yet cost-effective manner.

Project Model / IT Support Center / Virtual IT Support

The core success factor in IT Services is its project model. IT Services accepts requests for assistance from faculty, staff and affiliates. Specific details concerning the project methodology can be found via the "Request for Service Governance" Section. The fundamental of this methodology is that senior leadership of the university generally determines how IT Services' resources are expended. IT Services leaders react to these requests and lead the organization to execute its priorities as per our IT Services' mission.

IT Services is a customer-focused organization, and IT Support Center along with the Virtual IT Support provided to all university constituents are the cornerstones of all customer care activities serving as a single "front door" to IT Services for all members of the university community. IT Services staff provide the vital function of solving many general inquiries upon first contact while executing a triage model to ensure specialists receive the appropriate detailed requests. The IT Support Center along with our Virtual IT Support offering absorbs more than 30,000 requests annually.

Organization of IT Support at IUP

IT Services

IT Services is responsible for all computing support for the university community. The specific scope and details of those responsibilities can be found in the "IT Services Outline" Section of this document. The IT Services Executive Team drives a four-dimensional leadership model (strategy, tactics, administration and security).

IT Services Leadership Team

Todd Cunningham, who serves as IUP's Chief Information Officer (CIO), is responsible for the strategic vision and policy decisions for IT Services, in addition, tactical decisions and overall operational responsibilities. The CIO is IUP's most senior IT professional and is IUP's official IT representative to all external parties – including the Pennsylvania State System of Higher Education (PASSHE), Educause, third-party vendors, various associations, etc.

Dan Yuhas, who serves as the Director of IT Compliance and Administration, is responsible for IT security compliance as well as IT procurement governance matters. Jeff Montgomery, the Coordinator of Enterprise Applications and Project Management Team is responsible for the enterprise applications, development, integrations, data management and project management. He currently also heads up the Central Administration Services of the PASSHE OneSIS project and has 3+ FTE assisting with those efforts. Amanda Marshall is IT Services' Director of Project Management ensuring all enterprise-wide IT projects and those prioritized by Cabinet members have appropriate resources and project management activities.

Stephen Ditch (Enterprise Device Support and Instructional Technologies), Ben Dadson (Enterprise Systems Infrastructure), Eric Parks (Application/Web Development Infrastructure), and Chris Bennett (Networking Operations) round out the IT Services Leadership Team. Each Coordinator is responsible for the activities of their respective operating unit within IT Services. All leadership team members make up the overall tactical leadership team of IT Services.

Although IT Services is part of the Academic Affairs Division, all activities are 'division neutral'. IT Services receives financial support from university-wide sources (central computing reserve and enterprise information systems account) as well as Academic Affairs and the Student Technology Fee.

Cybersecurity Leadership Team

In the Fall 2024 semester, the cross-functional Cybersecurity Leadership Team was formed as part of continuing efforts to enhance awareness and emphasis being placed on IT security by the university. The Cybersecurity Leadership Team is a cross-functional team comprised of the Senior Security Analysts and security-related representation from each IT Services operating unit. The committee's mission is to further permeate and emphasize IT security as a priority across the university community while also creating further knowledge redundancy in IT Services. The committee manages IUP's National Cyber Security Awareness Month activities. In addition, the committee manages the operation of IUP's cybersecurity education program as well as the operation of IT compliance activities, such as fulfilling legal mandates from IT compliance.

Other Computing Partners

In addition, IT Services has many partners that round-help the information technology footprint at IUP. These include affiliates like the Student Cooperative Association and the IUP Research Institute as well as the divisions of Student Affairs and University Relations.

IT Services Outline

Background

The impact of information technology on the IUP community has increased with monumental speed over the past decade. Distance education, ERP, wireless computing, business intelligence, multimedia classrooms, streaming media, web content management systems, sophisticated e-mail communication, cloud systems/services and related technologies simply did not previously exist in any measurable form. The following is a brief overview of the various major categories of services currently offered by IT Services – acknowledging that needs and services change constantly to meet the objectives of senior leaders.

General Philosophy

Given expanding needs in the face of diminishing resources, IT Services is focused on delivering a secure, modern, mainstream IT environment. IT Services has standardized a basic set of core tools for administrative users as a means to limit the need for IT support staff. The desktop standards include Microsoft Windows and Microsoft Office, while the information system tools include Banner, Oracle Business Intelligence Enterprise Edition (OBIEE), and the PASSHE-hosted SAP system for finance and payroll.

Services Overview

- **Customer Care**
  - IT Support Center – www.iup.edu/itsupportcenter, ihelp.iup.edu, it-support-center@iup.edu
  - Virtual IT Support (through live Zoom links)
  - Training and Workshops
  - Communications – IT Support website
  - Student PC Software & Hardware Support
  - IT Support Resources for Students/Employees
  - Mobile setup, access and security
  - Semester Start-Up Triage and Specialist Stations

  The IT Support Center will respond to over 30,000 support cases during 2024. Over 2,200 of these support cases occurred during the week prior to, and first week of, Fall 2024 classes

- **Enterprise System Infrastructure**
  - Computing Operations Center Management
  - All Central Computing Hardware Maintenance, Management and Monitoring
  - Operating System Installation, Maintenance, Management and Monitoring
  - Enterprise Service Security
  - System Backup and Restore
  - Enterprise Application Installation, Maintenance, Management and Monitoring
    - Central Authentication and Group Security Services
    - Office 365 Suite of applications
    - Azure Cloud Management

- o   Content Management System Management
- o   Proxy and Directory Services

The physical network plant consists of 902 miles of fiber and over 1000 network devices connecting 69 buildings to provide over 20,000 active network jacks and over 1,500 wireless access points. The active network jacks and over 10,000 simultaneous wireless connections serve more than 20,000 active computing accounts on as many as seven major systems.

- **Enterprise Networking**
  - Network Physical Plant – Wiring, Devices, Software Monitoring, Wireless
  - Greater-Internet (10GB Kinber Curcuit with 3GB commodity internet and 7GB available for Internet2 and KMEX). In addition, a 10GB Level3 connection as a secondary
  - Campus VoIP Services

- **Information Systems – Software Engineering, Middleware and Database Administration**
  - Banner
    - o   Integrated Student, Financial Aid, Advancement
    - o   Banner Xtender (BXS)
    - o   Self-Service (URSA)
    - o   MyIUP (Luminis)
    - o   DegreeWorks
    - o   CRM Recruit
    - o   CRM Advise
  - Ancillary Information Systems (I-Card, Assessment, UDB)
  - Integrated SaaS solutions – over 50 custom integrations into the Banner environment
  - Decision Support Systems – Oracle Business Intelligence Enterprise Edition
  - State and Federal Reporting Activities
  - Custom Application Development\Reporting (Online Reporting)
  - Enrollment Management Unified Report (EMUR)
  - OOCIT-Related Operational Support
  - State System SIMS initiative

IT Services software engineers have developed over 1,000 custom-written Banner functions serving approximately 1,600 dedicated Banner user accounts and approximately 3.7M Banner web hits\month

- **Enterprise Support and Instructional Technologies**
  - Learning Management System
  - Multimedia Classrooms
  - Emerging Technologies (Blogging, Streaming Media, Student Response Systems, Wiki)
  - Test Scoring and Faculty Evaluations
  - Student Home Directory and Portfolio Services
  - Project Directory Service
  - Course E-Mail Distribution Lists
  - Advanced Technical Support

On-campus instructors are able to utilize over 250 multimedia classrooms for the delivery of course content, while off-campus students were offered 150 fully-online courses.

- **Computing\Desktop Services-All Customers**
  - 1300 Administrative/Academic Users

- 5,000 Personal Computers
- 50 specialized application servers

- **Specialized Services**
  - Substantial Committee and Taskforce Participation (IUP and State System)
  - Emergency Management System
  - IUP Affiliate Systems and Network Support
  - Student Cooperative Association, KCAC, Research Institute, Foundation for IUP
  - Stand-Alone Document Imaging
  - 3rd party software/systems integration
  - Hosted Service Management
  - Management and Consulting Support
    - Computing Policy Leadership
    - Business Process Consulting

IT Services - Request for Service Governance

IT Services employs the following governance methodology in completing its mission.

The goals of this methodology are:

1. Ensure that IT Services continually aligns its resources with evolving university goals while deploying its resources in an efficient, transparent manner.
2. Promote the use of information technology as a university-wide strategic asset.
3. Empower members of the university community by providing a clear process for obtaining support from IT Services guided by a clear, concise decision process.
4. Retain compliance with Pennsylvania State System of Higher Education IT Governance requirements.
5. Retain compliance with university IT-related policies and procedures with emphasis on providing confidentiality, integrity, and availability of information within IT applications.

Requesting Services
IT Services accepts requests from any member of the university community (students, faculty, staff, and affiliates) as well as committees. Request by ihelp, email it-support-center@iup.edu, phone 724-357-4000, in person at the IT Support Center in Delaney Hall, Suite G35, or via Virtual IT Support at https://iupvideo.zoom.us/my/virtualitsupportcenter. Requests can be made on behalf of the individual or on behalf of a department, office, division, committee, task force, or team. Requirements resulting from State System IT Governance requirements will also be transformed into requests.

Other IT Support Contacts
If a given request is not appropriate for IT Services, the user will be notified and/or a referral will be made to the appropriate contact.

Production Failures
A triage procedure will be used to determine if the request represents a "production failure" to an existing system supported by IT Services. If so, fulfilling this request will become a top priority, and resources will be utilized to gain the timeliest successful resolution possible.

Help Desk Calls

If a request is not a production failure, triage will further determine if the resolution will likely require 15 IT Services person hours or less. If so, the request will be assigned to the appropriate staff and will typically be addressed in a first-in, first-out manner. Requests where the resolution will likely require more than 15 IT Services person hours will not be treated as help desk calls and will be transformed into a project request priority from that division's executive sponsor.

Project Requests

The CIO, the Director of Project Management and the IT Services Coordinators manage IT project request queues in partnership with each division's executive sponsor, typically the vice president or division leader. The chief information officer serves as the executive sponsor for the State System IT Governance and internal IT Services projects. Projects from the Office of the President (including Cabinet officials not represented by a division), are prioritized on a case-by-case basis. Executive sponsors can request a change in priorities if warranted by unforeseen situations, but only if deemed practical by the executive director of IT Services.

IT Security and General Support Compliance

Compliance with industry-standard IT security practices, contract and license requirements, and overall support infrastructure can impact resolution of help desk and project requests, including the inability to fulfill certain requests.

IT SUPPORT CENTER Delaney Hall 950 Grant Street Indiana, PA 15705 Phone: 724-357-4000 it-support-center@iup.edu	VIRTUAL IT SUPPORT https://iupvideo.zoom.us/my/virtualitsupportcenter 8:00 p.m. – 12:00 p.m. and 1:00 p.m. – 4:30 p.m. HOURS Monday through Friday 8:00 a.m. – 4:30 p.m.

Appendix 2: University IT Services Organizational Vision Plan

IT Services Organizational Vision
2025

Summary:

IT Services has been a successful organization with strong leadership and governance since its inception in 2006. It has shown its ability to pivot and be nimble when facing significant university changes and challenges, including diminished FTE/budget, declined enrollment, increased technical reliance and consistent change in various areas of functional leadership. As such, the future vision of the IT Services organization will be "more of the same". This does not mean that IT Services simply rests on its past successes but rather demonstrates continuous improvement while always attempting to be the best IT organization in higher education.

Organizational Approach:

While it may not be obvious in the accompanying organizational chart, IT Services has historically ensured that versatility and flexibility have been a significant part of the organization with the ability to swiftly adjust and react to the evolving vision of the executive leadership for

the university. IT Services often uses cross-functional teams to create ad-hoc and/or project groups/teams to accomplish certain projects or tasks. This will continue to be leveraged throughout the organization and even more so as resources continue to diminish. As the "on the floor" operational leader of the organization, this versatility will continue to be leveraged and will continue to allow for many successes as it has since its inception. This is an extremely important component of the IT Services approach.

The versatility previously mentioned will continue to permit the IT Services organization to meet the overall goals of the IUP strategic plan. Providing operational excellence in the help desk services, instructional technology support (D2L, MMCs, online learning, etc.), and specialized academic services (specialized software, simulations, assessments, loaners, VCL, student and research labs, etc.) are core to being student-centered and meeting students "when and where they are". IT Services personnel will continue to maintain and enhance core network and account/system administration services such as wi-fi, Microsoft accounts/services (including cloud identities), and specialized network connectivity which provide improved communication, collaboration, and engagement across the university community. IT Services will also continue to provide strong support for administrative tools and functions of the university, i.e. MyIUP, OneSIS, other specialized administrative tools (CRM Recruit – soon to be Slate, etc.).

In addition, cybersecurity plays a key role in the approach to the technology solutions and services of the IT Services organization. The future vision will continue to have cybersecurity at the forefront with the approach to have the senior security analyst report directly to the CIO while still being a cross-functional member of other teams to ensure that cybersecurity best-practices are in use throughout the organization. This will also be realized through regular security leadership team meetings ensuring new, on-going, and continuous evolution of the best cybersecurity practices.

And, finally, IT Services will continue to leverage the "Request for Service Governance" methodology (details on our IUP web site here) to ensure that the projects, tasks and assigned resources are in line with the goals and mission of the university through the CIO/division executive sponsor priority meetings. Working directly and collaboratively with the university executive team will be integral to the success of IUP.

IT Services – A New Era:

While the organizational approach mentioned above is important to continue to carry out the successes of the IT Services organization, it is also important to note a few fundamental tweaks to the approach moving forward to ensure additional success and to meet the needs of the university community, especially with the creation of the proposed IUPCOM. IT Services must be transparent in its missions as well as with reality. Time, money, and resources are now and will continue to be at a premium and as such, decision-making and technology solutions must be vetted significantly as a result.

IT Services must communicate and collaborate in a completely transparent manner with stakeholders, university executives and the new proposed IUPCOM. Having open dialog and

working in a collaborative manner will be paramount in the continued success of the organization especially with the many existing and future initiatives, such as OneSIS, MMC lab downsizing, ACPAC initiatives, academic restructuring and the related tools, course evaluation, electronic test scoring system, rapid identity (identity management solution), the opening of the college of medicine (IUPCOM) and the approach to cybersecurity. Regular communications, open forum opportunities, continuous status reports, etc. will be used to keep the open communications and collaboration.

IT Services will create a shared governance approach to infrastructure and administrative technology updates, additions, and changes. In addition to the regular current topics at the CIO/division executive sponsor priority meetings, they will be tweaked to share future lifecycle and strategic IT initiatives that will encourage vetting and open discussions on these topics/initiatives. As needed, additional discussions on these topics can be held at various division leadership meetings and other settings. As projects and other relevant strategic initiatives are prioritized, IT Services will communicate these items in a more transparent method to executives and other university constituents through website and other strategic communications.

Also in the new era, the use of third-party staff augmentation in the cybersecurity space (and perhaps in other technology areas) will be leveraged given declining resources and increased demand of cybersecurity and other technology practices.

The open dialog, collaborative nature and shared governance approach are also extremely important to exercise with the various PASSHE initiatives to recognize continued successes.

IT Services – Team Breakdown and Mission:

While cross-functional teams are important, it is still relevant to discuss the team structure of the organization and each team's mission.

- Enterprise Device Support and Instructional Technology – provides enterprise support and help desk services to the entire university community. This group also creates standards related to device support services. This is a slight tweak to the current organization where support is split between academic and administrative. Extreme customer service is extremely important since this team is the "front facing" team of the organization. Any support call is triaged by this team, handled and/or escalated within IT Services (or outside of IT Services for non-technical requests). End-user cybersecurity practices are the responsibility of this team (i.e. knowbe4 training, compromised accounts, etc.)
- Enterprise Applications and Project Management – provides IUP's ERP system support and integration services, including OneSIS, on-prem banner, crm recruit, database management, data integrations to/from bolt-on systems (ILP/D2L, crimson connect, Ampus logic/Finaid, etc.), data reporting environment (iReports), MyIUP, Advise, DegreeWorks, etc. Provide project management for OneSIS and other large projects like Identity Management/Rapid Identity implementation, Experience migration, etc. As stated in the accompanied org chart, the LOU staffing is not included, but it should be noted that the PASSHE OneSIS Central Administration (CADM) Services are managed

out of this team. The number of ancillary systems at IUP and their integration into our current on-prem Banner environment (and many soon to be integrated into OneSIS) are critical to the success of IUP and are fully maintained and supported by this team. Cybersecurity services performed on this team include the continued patching of the on-prem database and middleware environments.

- Enterprise Systems Infrastructure – provides systems and infrastructure to allow the many technology services and applications that are available to the university community to run appropriately. With the shift of on-premises servers and systems to more cloud-based solutions, the systems team must continue to adapt to supporting more integrations and maintaining cloud architecture that meets the needs of the university. Cybersecurity services performed on this team include continued patches of all on-premises devices (PCs, servers, etc.) as well as ensuring cloud solutions and integrations are current. In addition, monitoring and addressing various security risk alerts (user alerts, device alerts, etc.) within the Microsoft environment is a large responsibility.

- Enterprise Networking – provides enterprise network services, both wired, wireless, VLAN, RESNET and other specialty networks, to enable appropriate communications between all networked devices. This team also has the responsibility to collaborate with PASSHE's network personnel to ensure appropriate network and data flow for OneSIS and SIMS. Cybersecurity activities for this team are aplenty and include appropriate network configuration with IUP's border firewall. A minor tweak to this group will be to include another ITT to attempt to account for the loss of FTE. This _could_ be adjusted with the approach to move RESNET support to a 3rd party solution (Apogee).

- Cybersecurity – includes IT Services most senior level security resources, but as is evident in the other team listings, each has a cybersecurity component. The mission of the cross-functional Cybersecurity Leadership Team will include six members of the IT Services organization to regularly plan, discuss and research relevant cybersecurity needs and activities within IT Services.

- IT Administration and Compliance – provides all management of contracts, renewals, budgets, etc. of IT Services and services as a subject matter expert for any/all contracts. Also provides and maintains compliance activities for the IT Services organization. This resource is also involved with all legal activities including preservation requests, procurement contract review, etc.

Succession Planning:

IT Services is at a critical point in ensuring that its future is well-defined and secure. IT Services must continue to run on all cylinders as it has in recent history. As such, succession planning will play a large role in the new era of IT Services especially given that many long-time IT Services employees will be eligible for retirement in 5-10 years. Mentoring the new leadership as well as creating an up-front and transparent organizational plan for its future leaders will be vital to the continued success of IT Services. The CIO will continue to work directly with his supervisory chain, executives and IUP Human Resources to create appropriate strategies, incentives, and structure accordingly to ensure continued success. One example will be to work with IUP executives to potentially provide a modest bump to identified future leaders to attend relevant

leadership, technical, and appropriate soft-skill professional development opportunities in advance of expected retirements to fill critical IT Services roles.

Conclusion:

IT Services has a proven track record of adaptability and success, and the organization has consistently demonstrated resilience. Looking ahead with leadership transition, IT Services aims to build upon its achievements by continuously improving and maintaining its position as a leading IT organization and including appropriate succession planning to prepare for additional retirements in the mid-2020s. Key elements of its approach include versatility, cross-functional teams, operational excellence, a strong focus on cybersecurity, and an open collaborative, transparent, and shared governance approach. By adhering to the "Request for Service Governance" methodology and collaborating closely with university executives, IT Services is well-positioned to meet the goals and mission of the institution.