

contents

Executive Summary	
UAB Vision, Mission, and Values	6
Strategic Alignment with UAB Mission, Vision, and Values	
Where We Are	
Current State	
Departmental Desired State	
Departmental Gaps	
UAB IT Vision/Mission	
Vision	
Mission	
Strategic Imperatives & Value Statements	
Secure Computing	
Shared Governance	
World-Class IT	
Business Value	
Academic and Research Partnerships	
Data-driven Decision Making	
Community of Excellence	
How We Will Achieve Our Goals	
Conclusion	
Appendix A: Imperatives, Objectives and Tactics	
Appendix B: University Imperatives	





executive summary

The University of Alabama at Birmingham is a world-class educational and research university and deserves a world-class information technology organization. After several years of interim leadership, a permanent CIO was named at UAB, bringing a sense of excitement and anticipation. Changes began to happen almost immediately.

On day one, the crowdsourcing site SPARK launched, with staff, faculty and students rushing to suggest, and vote and comment on, the important ways information technology could help them. SPARK gave UAB IT employees the opportunity to listen intently so that we could act intentionally and move forward with new initiatives to empower the UAB community to achieve the University's mission.

Those initiatives include robust support for research: research computer capability has increased tenfold; National Science Foundation funds will help establish a new research network and associated science DMZ that should increase research network performance tenfold to speed transfers for large data sets; and an Alabama Innovation Fund grant and the generous support of the administration and deans have increased capacity tenfold to ease the strain of big data analytics. Staff and faculty now have unlimited email, as well as unlimited cloud storage through Box. Donations to UAB significantly increased thanks to technology tweaks. Security has been significantly enhanced through two-factor authentication, more secure passwords that expire after one year, and a common approach to asset and patch management. UAB is investing in technology to speed network connectivity by increasing bandwidth, partnering with content delivery network Akamai and planning a funding strategy to deploy at least 1 GBps to every desktop at UAB.

Much work remains to be done. A world-class information technology organization must deliver core services flawlessly as a basis for trust. It must be an organization that is agile, innovative and cost-efficient in meeting customer needs. It must be nimble in a rapidly changing world and somehow do this as a state and educational organization. Our aspirational goals are straightforward: if our customers could choose any IT organization to partner with them, they would choose us. If our employees could chose to work anywhere, they would chose to work at UAB IT. Finally, the partnership between UAB IT and its customers results in world-class performance that is recognized by the most discriminating national award programs such as InformationWeek Elite 100 or CIO100. Technology must create a competitive advantage for UAB.

Creating such a competitive advantage is hard, time intensive, and requires investment. Information technology affects almost everyone at a foundational level daily. Gathering requirements, prioritizing those requirements, and resourcing institutional priorities requires shared governance so that the collective intellect can be brought to bear against these daunting problems. This governance does not exist, and building it will be challenging. The number and complexity of issues suggests that sustained innovation over the next ten years is needed to achieve our aspirational goals. This will not occur overnight. Finally, this type of transformation will require sustained and substantial funding. Speaking simply, this is measured in the tens of millions of dollars per year. The return on investment in shared governance, time, and treasure is enormous as it frees UAB faculty, students, and researchers from the retardant effect of bad processes and supporting technology to become agents of innovation in their respective disciplines. We are going to need everyone — UAB IT, distributed IT, our customers and the Birmingham community to achieve this world-class organization.



"I've challenged UAB IT to be an agent of innovation and change. You've challenged IT with suggestions as to how we can improve our operations."

Curtis A. Carver Jr., Ph.D. Vice President and Chief Information Officer

The remainder of this report provides an assessment of the current state of IT at UAB; aligns UAB IT's proposed mission, vision, and imperatives under UAB's overarching mission pillars; and breaks down the seven imperatives of UAB IT into proposed strategic objectives, tactics, measurements, and estimated completion. These components form a new strategic plan for UAB IT. We have much to do, and we look forward to doing it together. UAB is a world-class university. It deserves a world-class IT organization. Come join us and help us build it.

UAB mission, vision & values

UAB Vision

"To be an internationally renowned research university – a first choice for education and health care."

UAB Mission

"To be a research university and academic health center that discovers, teaches, and applies knowledge for the intellectual, cultural, social and economic benefit of Birmingham, the state and beyond."

UAB Overarching Mission Pillars

- I. Provide education that prepares diverse students to lead, teach, provide professional services and become the prominent scholars and societal leaders of the future.
- II. Pursue research, scholarship and creative activities that spur innovation, make UAB a vibrant cultural center and expand UAB's capability to continually discover and share new knowledge that benefits society.
- III. Deliver the highest quality patient care that reflects our ability to translate discoveries into revolutionary therapies in one of the nation's largest academic medical centers.
- IV. Encourage partnerships that improve education, the arts and humanities, health, economic prosperity and quality of life through service at home and around the globe.
- V. Foster and stimulate innovation and entrepreneurship that contributes to the economic development and prosperity of the city of Birmingham, the state of Alabama and beyond.

OVERARCHING MISSION PILLARS **EDUCATION** RESEARCH **PATIENT** COMMUNITY **ECONOMIC** SERVICE **DEVELOPMENT ENGINEERING** ALYS STEPHENS CENTER BUSINESS LIBRARIES **OPTOMETRY GRADUATE SCHOOL** ARTS AND SCIENCES DENTISTRY MEDICINE PUBLIC HEALTH **HEALTH PROFESSIONS** EDUCATION NURSING **UAB HEALTH SYSTEM ATHLETICS** HONORS COLLEGE QUALITY ENHANCEMENT PLAN

INSTITUTION-WIDE INITIATIVES FDUCATIONAL **FACULTY &** INNOVATION & ENTREPRENEURSHIP CAMPAIGN ALUMNI RESEARCH BRANDING GLOBALIZATION AMC21 ENGAGEMENT FOR UAB & DISCOVERY **ENGAGEMENT** SUPPORT & RETENTION FOUNDATIONAL SUPPORT UNITS DEVELOPMENT CAMPUS **EOUITY & FACILITIES &** FINANCE & INFORMATION PUBLIC RESEARCH STUDENT SAFETY & SECURITY & ALUMNI RELATIONS DIVERSITY SUSTAINABILITY ADMINISTRATION RESOURCES TECHNOLOGY **AFFAIRS** MARKETING & SUPPORT

FACULTY / STAFF / STUDENTS / ALUMNI / COMMUNITY

EMPOWER UAB

strategic alignment

We must be the best in the world in IT to support our world-class students, faculty, staff, and administrators so that if they could choose anyone in the world for support, they would choose us. UAB IT must be internationally renowned with particular expertise in research, education, and health care. To be best in the world, we must lead and innovate within higher education and information technology in general. This aligns with the UAB values of accountability, caring and responsive service, entrepreneurial/can-do attitude, and commitment to excellence.

To support and empower the UAB mission, UAB IT must be involved in supporting technology excellence within UAB, Birmingham, the region, and beyond. This requires a broader and more strategic engagement with the general community and technology community in particular. This aligns with the UAB values of collaboration, commitment to excellence, community involvement, entrepreneurial/can-do attitude, and shared governance.

To embrace and model the UAB values, all leaders within UAB IT must lead by example in terms of ethical conduct, respect for diversity, and personal accountability. The judicious use of consultative authority must be balanced with extensive collaboration and shared governance to achieve unity of purpose and a commitment to excellence. Where it makes sense, we must realize cost efficiencies by operating as an institution or part of a regional consortium. As technologists, we must be innovative, agile, and cost efficient.

Characteristics of world-class information technology to support the UAB vision, mission, and institutional values include: establishing a secure computing environment, improving collaboration through multiple methods, providing unlimited storage, email, and bandwidth, implementing a cloud-first strategy, developing a mobile-only approach that includes location awareness, delivering unified communications, and developing an internationally ranked research computing infrastructure. Data-driven decision-making permeates the entire organization and empowers everyone to be an agent of innovation. IT shared governance transforms the landscape from islands of isolated committees to one of connected and empowered collective judgment that provide a competitive advantage through optimized investments and sustainable value. These shared governance bodies provide a venue not for venting but for sustainable innovation.

campus voice



"UAB IT partnered with the Faculty Senate to enable us to crowdsource ideas from faculty about what they would like us to focus on in the coming year. Their responsivenes and 'can do' approach to addressing the needs of faculty has been a breath of fresh air."

Dr. Alecia K. Gross chairwoman of the UAB Faculty Senate, on a SPARK campaign created by UAB IT

where we are

STRENGTHS

- New IT and approach
- People
 - Enterprise skills
 - Deep UAB experience
 - Dedicated
 - Responsive
 - Team oriented
- Enterprise scale solutions
 - Critical
 - Efficient
 - Reliable
- Customized solutions designed to meet UAB's mission
- Strengthened partnerships with key constituents
- Improved communication with campus and stakeholders

WEAKNESSES

- IT Strategic Plan not updated since 2012
- Immature governance model
- Funding
 - Models do not meet changing technology landscape
 - Sufficiency
- Staffing
 - Complex solutions require specialized skills (support & recruiting challenges)
 - Insufficient to meet growing demand and compliance needs
 - No formal development or succession plans
- IT Infrastructure age and capacity
- Informal IT processes
- Lack of metrics
- Lack of customer engagement in co-authoring solutions
- with campus and stakeholders

OPPORTUNITIES



- Cloud
- Mobile
- Storage Needs
- Network
- Compute capability
- Big data
- Partnering
 - Campus
 - Health System
 - UA System
 - Strategic vendors
- Streamline University business processes/leverage automation
- Research Computing Institute
- Expanding central role
- with campus and stakeholders

THREATS

- Conflicting and changing priorities among constituents
- Cyber-attacks increasing
- Regulatory changes and complexities
 - Federal (FISMA, FERPA, HIPAA)
 - Industry (PCI)
- Disaster recovery/business continuity
- Rapid pace of changing technology
- Not viewed as a strategic partner
- Competitive environment for staffing, recruitment and retention
- Exponential growth in HPC environment threatens UAB's competitiveness
- "Consumerization" of IT









CURRENT STATE

UAB IT has grown disconnected from the UAB mission and vision through five years of interim leadership. IT strategy has been limited with good leaders and employees struggling to fill the gap. Core services have been delivered inconsistently during this time due to low levels of process maturity within the organization. Redundant services flourish throughout the campus due to a lack of coordination and governance surrounding technology, and issues of trust, transparency, and credibility hinder institutional execution of its mission and vision.

DESIRED STATE

The ideal state is for UAB IT to become a strategic enabler of the UAB mission and vision – a competitive advantage compared to UAB aspirant institutions. To reach this state, UAB IT must become a world-class technology organization that is closely aligned with the UAB vision. This desired state must be reached according to an accelerated timeline (within ten years) in order to capitalize on UAB's unique trajectory within higher education and research.

campus voice



"We appreciate UAB IT's willingness to listen to the student voice, and we look forward to working with IT to help foster technology improvements across campus."

Garrett Stephens president, Undergraduate Student Government Association, 2015-2016

DEPARTMENTAL GAPS

UAB must address significant gaps in IT strategy and governance, security, and operations management.

CURRENT

- X Weak or nonexistent security policies.
- X Lack of sufficient security awareness training.
- X Outdated security technologies posing significant operational and reputational risk to the institution.
- X Limited unified IT strategy or governance.
- X Lack of transparency for UAB IT services.
- X Low maturity of processes and standards.
- X Highly distributed IT service delivery.
- X Duplication of services and resources.



DESIRED

- ✓ Robust and easy to find security policies.
- ✓ Enterprise security awareness training.
- Modern security technologies posing in place to prevent operational and reputational risk to the institution.
- ✓ A unified IT strategy and strong governance.
- Transparency for UAB IT services to our customers.
- Mature department processes and standards.
- ✓ Collaborative and cost efficient IT service delivery.
- Reduction or elimination of duplicate services and resources.





STRATEGIC IMPERATIVES & VALUE STATEMENTS



Create a secure computing environment

When students, faculty, and staff feel safe in their computing environment, they can work more efficiently without fear of external threats and are at greater liberty to foster new, innovative ideas, with the knowledge that their work is secure.



Establish shared governance

Shared governance builds trust, confidence, and accountability for all stakeholders in an organization while strengthening the organization through diversity of thought and collaboration.



Develop a world-class IT organization

The UAB vision is to be "an internationally renowned research university," and to accomplish this, we must strive for excellence in all areas, especially IT, which is a vital component of daily life in the modern university setting.



Generate business value

IT must be at the forefront of lowering institutional costs, increasing institutional revenues and relentlessly optimizing processes, as enablers and stewards of limited resources.



Partner with academic and research operations

New technologies, as well as a resourceful use of existing technologies, can be combined to set UAB apart from peer institutions in terms of efficiency and collaboration, and can ultimately ensure opportunities for student and faculty achievement.



Foster data-driven decision making

Data-driven decision making ensures unbiased accuracy, encourages information to be continually added and updated, and leads to long-term results, allowing UAB to be increasingly competitive with peer institutions.



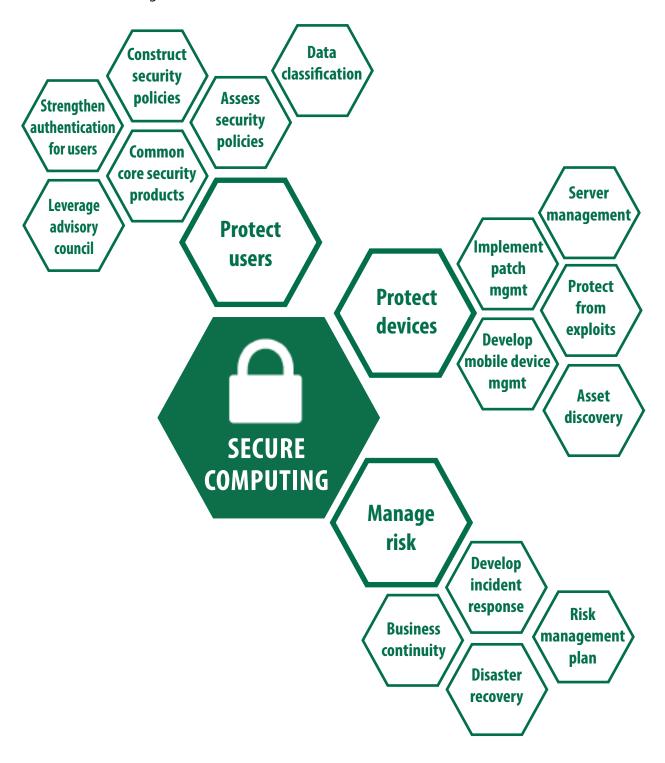
Enhance the IT community in Birmingham and beyond

UAB is a vital member of a vibrant technology ecosystem, with vested interests in the success of the IT community in Birmingham and beyond.



Create a secure computing environment for all UAB members through appropriate policy, training, and technology.

When students, faculty, and staff feel safe in their computing environment, they can work more efficiently without fear of external threats and are at greater liberty to foster new, innovative ideas, with the knowledge that their work is secure.







Build an IT shared governance structure with particular focus on partnership with the Health System.

Shared governance builds trust, confidence, and accountability for all stakeholders in an organization while strengthening the organization through diversity of thought and collaboration.





Create a world-class IT organization such that, if our customers could choose any provider, they would choose UAB IT.

The UAB vision is to be "an internationally renowned research university," and to accomplish this, we must strive for excellence in all areas, especially IT, which is a vital component of daily life in the modern university setting.







Gernerate business value through reduced costs, process innovation, and revenue generation.

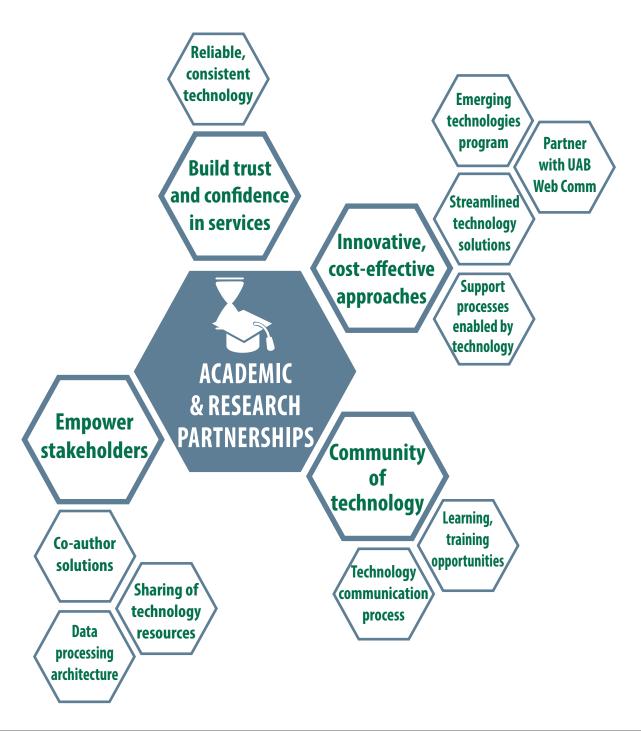
IT must be at the forefront of lowering institutional costs, increasing institutional revenues and relent-lessly optimizing processes, as enablers and stewards of limited resources.





Innovate UAB through partnerships with institutional business owners with a focus on academic and research operations.

New technologies, as well as a resourceful use of existing technologies, can be combined to set UAB apart from peer institutions in terms of efficiency and collaboration, and can ultimately ensure opportunities for student and faculty achievement.



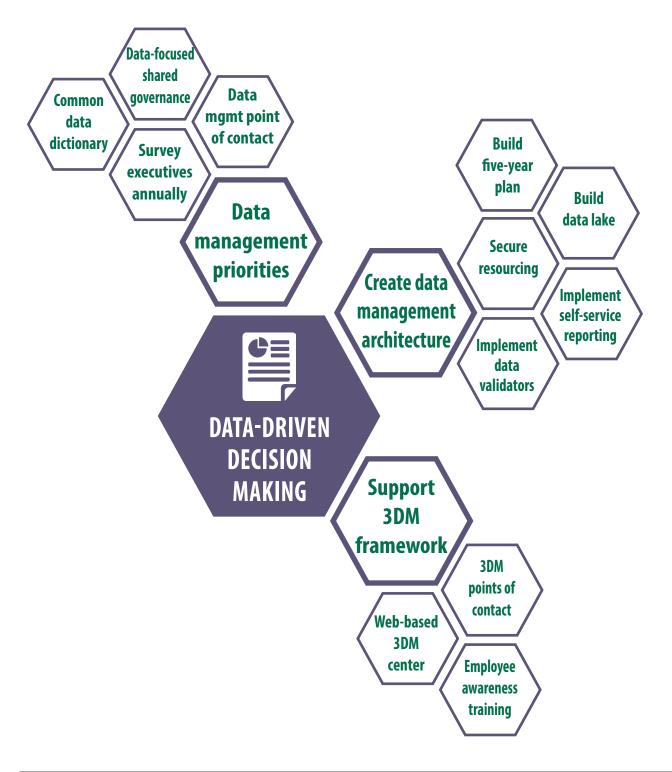


data-driven decision making



Foster an institutional data-driven decision-making culture that allows UAB to make informed and optimal decisions.

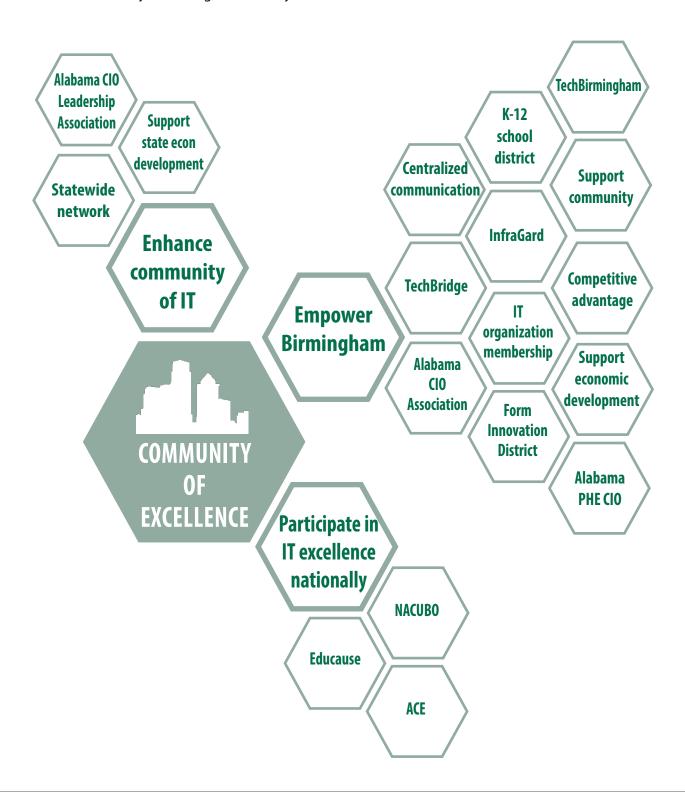
Data-driven decision making ensures unbiased accuracy, encourages information to be continually added and updated, and leads to long-term results, allowing UAB to be increasingly competitive with peer institutions.





Enhance the community of information technology excellence for the economic, social, and cultural benefit of Birmingham and beyond.

UAB is a vital member of a vibrant technology ecosystem, with vested interests in the success of the IT community in Birmingham and beyond.



EMPOWER UAB

how we will achieve our goals

WORLD-CLASS – Our recommendation is that UAB IT develop the processes and tools to become a world-class technology organization to enable the UAB community to be their best. This will be enabled by 1) transforming UAB IT into a service organization; 2) becoming transparent regarding the costs of technology provided; 3) implementing processes to attract, retain and grow our people. These steps will be acknowledged by the industry awards received and recognition from peer institutions.

GOVERNANCE – Our recommendation is to build a UAB technology governance structure that will offer the university business owners insight into the technology demands, resources and operational needs of UAB. This governance structure will allow university partners to provide customer input in prioritizing technology demand across the university. Additionally, this structure will ensure that the technology plans are aligned with the university goals. Outcomes of this recommendation are that the business owners will have 1) regularly scheduled updates on technology projects, their prioritization and underlying operational needs and the ability to offer input into prioritization; 2) an understanding of the technology governance structure and how to interact with it.

DATA – Our recommendation is that UAB IT take a central role in evolving UAB from being data-informed to data-driven. Being data-driven will allow all levels of UAB management to utilize data from across pertinent systems to enable the best strategic and tactical decisions to allow UAB to meet and exceed its goals. This will be enabled by 1) developing a UAB data governance model that will be adhered to by all identified system owners; 2) defining and completing technology projects to provide for the ability of developing a reporting foundation that UAB management can utilize to make decisions; 3) hiring or training resources to manage this new competency.

INNOVATION – Our recommendation is that UAB IT take the lead role in providing the guidance and leadership for developing technology innovation programs that will enhance and excel education, research and UAB community experiences. This will be done by purposefully 1) Building communities of practice across the university to focus on experiences and ways to innovate; 2) cross pollinating these communities of practice to ensure that innovation takes place institution wide.

PARTNERSHIP – Our recommendation is that permanent tools and processes be put in place to enable conversations within the UAB community regarding technology needs and challenges. This will be enabled via three ways: 1) the continued use of SPARK for ideation and prioritization by allowing for campus-wide participation; 2) the creation of experience committees to enable technology discussions for a particular group such as students, faculty, researchers or staff; 3) Partnering via regular interactions with the UAB community to understand their strategic needs to determine how technology can be used to reach their goals.

FINANCIAL PHILOSOPHY – Our philosophy is one of service and stewardship. We will align our resources, both time and money, with institutional priorities; we will make services elegant and simple to use; we will seek to reduce costs on commodity services so that we can invest in areas that give UAB competitive advantage; we will be transparent with our customers and seek to co-author solutions with their input. To accomplish this, we will establish clear areas of responsibility and lines of authority to ensure accountability. We will develop a process of continuous improvement to meet the changing paradigms of technology and the demands of a thriving UAB.

campus*voice*



"This has been a monumental addition to our operations, which has allowed us to provide superior donor relations and transparency."

Randy Kinder, senior director of Annual Giving at UAB, on a telephone technology tweak that helped boost donations to the Campaign for UAB

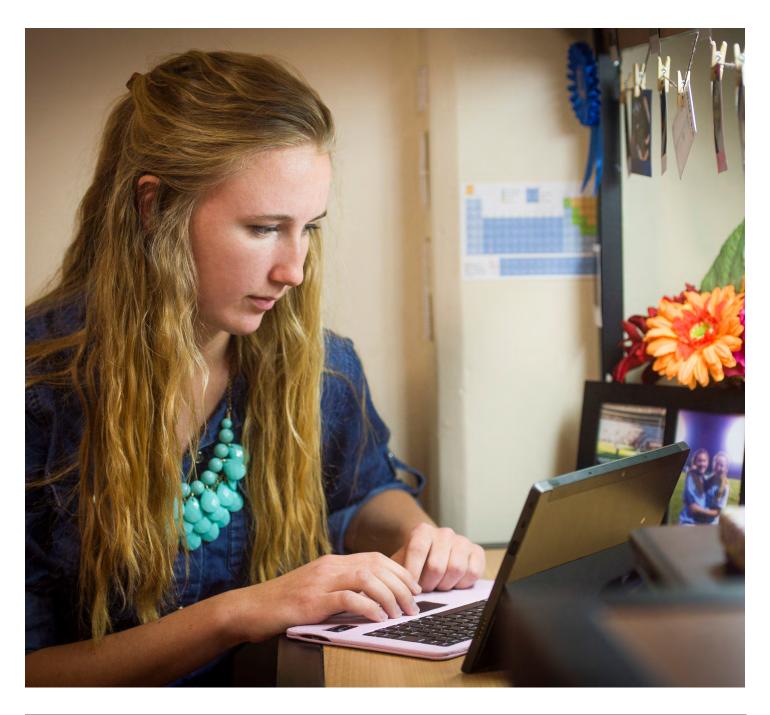




EMPOWER UAB

conclusion

A great brand is a story that never stops unfolding. It anticipates and reacts appropriately to a rapidly changing world through sustainable innovation. UAB IT must transform to become a distinctive competitive advantage for the University of Alabama at Birmingham and its students, faculty, researchers, administrators, alumni and staff. This will be a decade-long journey requiring decisive leadership, the active involvement of all constituent groups at UAB, and appropriate investment as we work together to change the world.





Imperative 1: Create a secure computing environment for all UAB members through appropriate policy, training, and technology.

Objective 1: Protect university and faculty, student, and staff confidentiality.	
No	Tactics
Tactic 1.1	Construct a set of policies and standards to enable a secure computing environment. Policies should be lean and authorize development of Standards that can undergo a more rapid development and update cycle.
1.1.a	Establish a Data Access Policy.
1.1.b	Establish an Access and Authentication Policy.
1.1.c	Establish an Acceptable Use Policy.
1.1.d	Establish a Data Classification and Protection Standard.
1.1.e	Establish a Password/Authentication Standard.
1.1.f	Establish an Access Management Standard.
1.1.g	Establish a Network Device Standard.
1.1.h	Establish a Sensitive Device Standard
1.1.i	Establish Awareness/Training Standards.
Tactic 1.2	Assess security policies and standards enacted across UAB Campus and Health System.
1.2.a	Determine policies and standards that need to be updated, go through a sunsetting process, or new ones that need to be created.
1.2.b	Publish up-to-date list of security policies and standards.
1.2.c	Identify or define escalations & enforcements within each policy or standard.
Tactic 1.3	Provide a common core suite of security functionalities and products available to our customers.
1.3.a	Implement dual factor authentication for sensitive data and privileged users.
1.3.b	Provide seamless device encryption.
1.3.c	Protect UAB through network advanced threat detection.
1.3.d	Upgrade and unify edge firewall protection while segmenting data center traffic.
1.3.e	Provide computing devices for international use for sponsored and non-sponsored projects to meet Export Control requirements.
1.3.f	Provide secure message capability with respect to emails.
Tactic 1.4	Strengthen user authentication to protect UAB students, faculty, researchers, and staff.



1.4.a	Change password length to 15 characters or more with a one year renewal.
1.4.b	Enhance the authentication environment through consolidation of active directory domains and SSO for prioritized systems.
1.4.c	Enable Federated Login services for campus to reduce sign on requirements when using the same credentials.
Tactic 1.5	Leverage the security advisory council utilizing UAB and regional expertise to shape the UAB secure computing environment.
1.5.a	Create an internal process for shared governance with the UAB CISO to ensure that the initiatives with the largest impact are implemented first (create a reference to this in Imperative 2).
1.5.b	Contribute ten enhancements to UAB security annually.
1.5.c	Recommend prioritization of IT security efforts to the UAB CISO annually.
1.5.d	Charter UAB standard shared governance framework.
Tactic 1.6	Implement measures to reduce Institutional dependency and exposure to risk through PII and other high risk data
1.6.a	Identify or create an internal identifier that will serve as an internal replacement for the Social Security Number
1.6.b	Transform internal processes to use this Identifier as the Primary ID in place of SSN
1.6.c	Create secure framework for handling residual high risk PII
Tactic 1.7	Establish a core set of Security Competenticies and Procedures
	Farmalina Caracita Caracitana and antabilah a HAR Caracita Caracitana Caraci
1.7.a	Formalize Security Operations and establish a UAB Security Operations Center.
1.7.a 1.7.b	Institute security Risk Management and Compliance practices where needed.
1.7.b	Institute security Risk Management and Compliance practices where needed.
1.7.b 1.7.c 1.7.d	Institute security Risk Management and Compliance practices where needed. Institute security posture change management (FW rules, DNS, etc.) process.
1.7.b 1.7.c 1.7.d	Institute security Risk Management and Compliance practices where needed. Institute security posture change management (FW rules, DNS, etc.) process. Review and update Incident Response procedures.
1.7.b 1.7.c 1.7.d 1.7.e	Institute security Risk Management and Compliance practices where needed. Institute security posture change management (FW rules, DNS, etc.) process. Review and update Incident Response procedures. Review and update Vulnerability management procedures.
1.7.b 1.7.c 1.7.d 1.7.e	Institute security Risk Management and Compliance practices where needed. Institute security posture change management (FW rules, DNS, etc.) process. Review and update Incident Response procedures. Review and update Vulnerability management procedures. Institute security testing (penetration testing) competency.
1.7.b 1.7.c 1.7.d 1.7.e 1.7.f	Institute security Risk Management and Compliance practices where needed. Institute security posture change management (FW rules, DNS, etc.) process. Review and update Incident Response procedures. Review and update Vulnerability management procedures. Institute security testing (penetration testing) competency. Objective 2: Manage user experience by protecting computer devices.
1.7.b 1.7.c 1.7.d 1.7.e 1.7.f	Institute security Risk Management and Compliance practices where needed. Institute security posture change management (FW rules, DNS, etc.) process. Review and update Incident Response procedures. Review and update Vulnerability management procedures. Institute security testing (penetration testing) competency. Objective 2: Manage user experience by protecting computer devices. Tactics
1.7.b 1.7.c 1.7.d 1.7.e 1.7.f	Institute security Risk Management and Compliance practices where needed. Institute security posture change management (FW rules, DNS, etc.) process. Review and update Incident Response procedures. Review and update Vulnerability management procedures. Institute security testing (penetration testing) competency. Objective 2: Manage user experience by protecting computer devices. Tactics Protect devices through asset discovery. Determine business requirements for automated asset detection (prioritize things open to the
1.7.b 1.7.c 1.7.d 1.7.e 1.7.f No Tactic 2.1 2.1.a	Institute security Risk Management and Compliance practices where needed. Institute security posture change management (FW rules, DNS, etc.) process. Review and update Incident Response procedures. Review and update Vulnerability management procedures. Institute security testing (penetration testing) competency. Objective 2: Manage user experience by protecting computer devices. Tactics Protect devices through asset discovery. Determine business requirements for automated asset detection (prioritize things open to the internet first).

2.1.e	Secure network using Authenticated DHCP (closed firewall and providing private instead of public IP addresses).
2.1.f	Reduce the number of out of service operating systems and applications across campus where viable.
2.1.g	Create a risk-based exception process for out of service operating systems and applications.
Tactic 2.2	Protect devices through patch management using a single campus system.
2.2.a	Determine business requirements for patch management system (this has a dependency on asset discovery listed as a previous measurement).
2.2.b	Evaluate technology solutions for patch management.
2.2.c	Deploy patch management solutions and schedule auto scanning.
2.2.d	Create a business value reference to this from a communication perspective.
2.2.e	Manage critical systems through patch management and department-level dashboards and auto scanning.
Tactic 2.3	Protect user from exploits.
2.3.a	Evaluate, select and implement a device protection system.
2.3.b	Educate users annually on the construction of strong passwords.
2.3.c	Implement a password management tool.
2.3.d	Select or build an active anti-phishing training program.
2.3.e	Launch an annual campus "Cyber Security Awareness" month to coordinate with the current national effort in October.
2.3.f	Initiate new student orientation activity to require cyber security training related to security awareness and UAB policies (online).
2.3.g	Initiate new employee cyber security training related to security awareness and UAB policies (online).
2.3.h	Initiate recurring cyber security training for existing employees every 3 years to refresh security awareness and UAB policies (online).
2.3.i	Provide insider threat awareness training.
2.3.j	Provide phishing awareness training (give examples of what and how many we get each week/month/year)
2.3.k	Provide student centered DMCA extortion awareness and training.
Tactic 2.4	Protect devices through mobile device management.
2.4.a	Determine business requirements for mobile device management (ensure that the appropriate relationship for data classification exists within the requirements)
2.4.b	Select and deploy a technology solution for mobile device management.
	Objective 3: Manage risk by balancing security & productivity.
No	Tactics Tactics Tactics

Tactic 3.1 Develop a technology incident response capability.



3.1.a	Create incident response teams for security incidents.
3.1.b	Detect and classify of incidents through log triage and management.
Tactic 3.2	Support the development of university-wide business continuity capability.
3.2.a	Partner with Emergency Management Office to develop a business continuity plan
3.2.b	Identify and prioritize critical systems for business continuity
3.2.c	Procure and implement a cost effective business continuity system.
Tactic 3.3	Support the development of university-wide disaster recovery capabilities.
3.3.a	Identify a list of campus critical systems.
3.3.b	Develop an over-arching disaster recovery plan.
3.3.c	Conduct annual disaster recovery exercises.
3.3.d	Establish three (3) disaster recovery plans related to business critical systems per year.
Tactic 3.4	Support the development of the university-wide risk management plan.
3.4.a	Partner with the compliance office to establish an IT risk management policy.

Imperative 2: Build an IT shared governance structure with particular focus on partnership with the Health System.

Objective 1: Establish a formal process for two-way communication with Community Stakeholders	
No	Tactics Tactics
Tactic 1.1	Identify governance stakeholders
1.1.a	Create and publish a list of stakeholder groups and sub groups
1.1.b	Identify points of contact for each stakeholder group.
Tactic 1.2	Develop an ongoing dialog with community stakeholders for reporting and soliciting feedback, and engaging IT customers on IT activities and plans.
1.2.a	Establish a Communications subcommittee to provide common, shared mechanisms for community interaction
1.2.b	Develop and communicate a UAB IT Technology roadmap that reflects specific outcomes of the strategic plan
1.2.c	Develop a single page graphic which captures and simplifies the UAB IT Technology roadmap.
1.2.d	Develop a process for informing the community regarding planning, status, and outcomes of roadmap objectives.
1.2.e	Establish a series of customer-specific IT interaction sessions to convey information and solicit input on ongoing and planned activities.
Objective	2: Establish a governance structure to support IT oversight, assessment, prioritization, and resource allocation.
No	Tactics
Tactic 2.1	Establish an Executive IT Oversight Committee that provides advice and input on both strategic and tactical initiatives to the Vice President/Chief Information Officer and the UAB Enterprise IT Oversight Committee
2.1.a	The Executive IT Oversight Committee will work directly with second-tier subcommittees (below) to help organize their efforts and identify and deal with overlapping points of interest between multiple subcommittees.
2.1.b	The Executive IT Oversight Committee will evaluate strategic plans and ongoing projects to help prioritize and resource IT activities.
2.1.c	The Executive IT Oversight Committee will evaluate strategic plans and ongoing projects to
2.1.d	determine those that need the attention of the Enterprise Oversight Committee. The Executive Oversight IT Committee will receive and review outcomes assessment reports on IT initiatives.
2.1.d 2.1.e	determine those that need the attention of the Enterprise Oversight Committee. The Executive Oversight IT Committee will receive and review outcomes assessment reports on IT
	determine those that need the attention of the Enterprise Oversight Committee. The Executive Oversight IT Committee will receive and review outcomes assessment reports on IT initiatives.





- Administrative systems (Research, Education, Human Resources, Finance...)
- Data management

4.3.a

prioritization).

2.2.b	Subcommittees should be evaluated annually to determine if the expected benefit has been achieved.	
2.2.c	Ad hoc subcommittees should be established and disbanded as necessary to support short-term goals.	
2.2.d	Create and publish a charter for each defined standing committee that specifically defines its roles, responsibilities, and expected activities.	
Tactic 2.3	Evaluate and adjust the existing governance structure	
2.3.a	Create a map of UAB's existing IT governance structure.	
2.3.b	Streamline, recharter, and reorganize existing entities as needed, to facilitate an efficient, comprehensive, inclusive, governance structure as defined in tactic 2.2	
2.3.c	Remap the new governance structure and define reporting relationships within IT, with the top-level and second-tier governance entities, as well as with community stakeholders.	
Ob	Objective 3: Establish an infrastructure supporting evaluation and outcomes assessment	
No	Tactics Tactics	
Tactic 3.1	Establish a standard, formal mechanism for assessing and reporting project outcomes.	
3.1.a	Create individual committee evaluation plans that define success, as well as a committee standard for defining successful accomplishment of each individual project. The standard should include metrics of success, evaluation, reporting, and future plans.	
3.1.b	Establish an annual reporting mechanism to provide feedback to the appropriate governing body at the beginning of each calendar year.	
(Objective 4. Strengthen the (enterprise-level) partnership between UAB IT and HSIS.	
No	Tactics	
Tactic 4.1	Create an enterprise governance map, identifying up to 3 layers of the existing governance structures in place.	
4.1.a	Identify and publish the current governance structures/meetings in place that support UAB IT and HSIS partnership. Make sure to include research related committees. Health System security committees might not be included in this list unless identified as relevant.	
Tactic 4.2	Re-charter the UAB Enterprise IT Oversight Committee to focus on strategic initiatives and resourcing (highest group).	
4.2.a	Reassess and publish the formal, written UAB Enterprise IT Oversight Committee charter.	
4.2.b	Conduct quarterly meetings based on strategy, trends, and resourcing.	
4.2.c	Create an annual report for UAB's president.	
4.2.d	Create an enterprise recommendation subcommittee that reports to the UAB Enterprise IT Oversight Committee.	
Tactic 4.3	Partner with HSIS on initiatives of mutual interest.	



Create or re-charter an existing committee to co-prioritize needs across campus and HSIS IT needs (create the appropriate feedback loop to make recommendations about project/operational resource

4.3.b	Identify joint initiatives, and deliver enterprise solution proposals for those joint initiatives with a goal of completing 3 to 5 joint initiatives annually over the next 3 years.
4.3.c	Provide a joint initiative annual report to the UAB President's Cabinet.
Tactic 4.4	Schedule regular meetings between UAB IT and HSIS to review individual strategic initiatives.
4.4.a	Conduct monthly meetings between UAB IT and HSIS CIOs.
4.4.b	Conduct bimonthly meetings between UAB IT and HSIS leader teams - topic related joint meetings.





Imperative 3: Create a world-class IT organization such that, if our customers could choose any provider, they would choose UAB IT.

Objective 1: UAB IT will build trust with our customers	
No	Tactics
Tactic 1.1	Improve UAB IT employee engagement with all customers.
1.1.a	Build relationships with the customer community
1.1.b	Provide dependable two-way communication mechanisms with customers.
1.1.c	Create role based processes to facilitate a customized help desk approach
1.1.d	Design efficient IT service offerings to meet customer needs.
1.1.e	Implement self-help capabilities for users for common tasks (i.e. password reset and software download).
Tactic 1.2	Offer customers the best options in the most cost-efficient and transparent manner.
1.2.a	Identify, publish, and adhere to the UAB IT "Bill of Rights" subsidized services.
1.2.b	Provide core services without billing enterprise stakeholders (RCM dependent).
1.2.c	Provide fair and transparent rate estimates three to six months prior to year-end.
1.2.d	Provide finalized bills to supported departments in a prompt and timely manner.
Objective	2: UAB IT will offer reliable services that exceed the needs and expectations of customers.
No	Tactics Tactics
Tactic 2.1	Deliver services in an effective and reliable manner.
2.1.a	Resource IT services to ensure that there is adequate staffing and expertise to meet the customer demand for services offered through UAB IT.
Tactic 2.2	Develop SLAs/SLOs for IT services offered. These will include definitions of acceptable number of service issues experienced as it applies by system.
2.2.a	Deploy a customer portal that provides SA, NPS, and SLA/SLO over time as well as dashboards for current system status and planned changes.
Tactic 2.3	Develop effective and consistent change and release management processes.
2.3.a	Define and maintain list of current service owning customers.
2.3.b	Publish a calendar of change management meetings and provide an open invitation to customers.
2.3.c	Provide a consistent communication method/process for publishing change management and release management information to customers.

Tactic 2.4	Develop a single, responsive, proficient, and courteous help desk within UAB IT
2.4.a	Achieve organizational first time contact resolution > 90%
Tactic 2.5	Provide value-added services with competitive pricing for fee based services
2.5.a	Identify with the community revenue-based services on an annual basis.
2.5.b	Collaboratively evaluate technologies with the community to ensure the most cost efficient solution for the university is selected, rather than UAB IT driving institutional solutions.
Tactic 2.6	Cultivate strategic anticipation related to emerging technology needs.
2.6.a	Create a structured approach to technology risk identification and management that is inclusive of customer feedback.
2.6.b	Routinely attempt to identify changing customer needs and emerging technology requirements (ref. 3.1.2.c)
2.6.c	Create a yearly venture fund representing 1% of total budget in order to encourage innovative approaches to emerging technology needs
	UAB IT will deliver IT related HR programs and services with such quality and expertise that technology community gains a competitive advantage from the collaborative efforts to make UAB IT a great place to work.
No	Tactics Tactic
No Tactic 3.1	Tactics Employ professionals who create success for customers
Tactic 3.1 Sub Tactic	Employ professionals who create success for customers
Tactic 3.1 Sub Tactic 3.1.1	Employ professionals who create success for customers Attract the talent
Tactic 3.1 Sub Tactic 3.1.1 3.1.1.a	Employ professionals who create success for customers Attract the talent Recruit qualified technologists to work in the restructured help desk.
Tactic 3.1 Sub Tactic 3.1.1 3.1.1.a 3.1.1.b	Employ professionals who create success for customers Attract the talent Recruit qualified technologists to work in the restructured help desk. Develop a local, regional, and national reputation as an innovative technology organization.
Tactic 3.1 Sub Tactic 3.1.1 3.1.1.a 3.1.1.b 3.1.1.c	Employ professionals who create success for customers Attract the talent Recruit qualified technologists to work in the restructured help desk. Develop a local, regional, and national reputation as an innovative technology organization. Provide competitive salaries without internal salary inequities
Tactic 3.1 Sub Tactic 3.1.1 3.1.1.a 3.1.1.b 3.1.1.c 3.1.1.d Sub Tactic	Employ professionals who create success for customers Attract the talent Recruit qualified technologists to work in the restructured help desk. Develop a local, regional, and national reputation as an innovative technology organization. Provide competitive salaries without internal salary inequities Optimize the UAB and UAB IT onboarding program.
Tactic 3.1 Sub Tactic 3.1.1 3.1.1.a 3.1.1.b 3.1.1.c 3.1.1.d Sub Tactic 3.1.2	Employ professionals who create success for customers Attract the talent Recruit qualified technologists to work in the restructured help desk. Develop a local, regional, and national reputation as an innovative technology organization. Provide competitive salaries without internal salary inequities Optimize the UAB and UAB IT onboarding program. Develop the talent
Tactic 3.1 Sub Tactic 3.1.1 3.1.1.a 3.1.1.b 3.1.1.c 3.1.1.d Sub Tactic 3.1.2 3.1.2.a	Employ professionals who create success for customers Attract the talent Recruit qualified technologists to work in the restructured help desk. Develop a local, regional, and national reputation as an innovative technology organization. Provide competitive salaries without internal salary inequities Optimize the UAB and UAB IT onboarding program. Develop the talent Align performance management with institutional priorities.
Tactic 3.1 Sub Tactic 3.1.1 3.1.1.a 3.1.1.b 3.1.1.c 3.1.1.d Sub Tactic 3.1.2 3.1.2.a 3.1.2.b	Employ professionals who create success for customers Attract the talent Recruit qualified technologists to work in the restructured help desk. Develop a local, regional, and national reputation as an innovative technology organization. Provide competitive salaries without internal salary inequities Optimize the UAB and UAB IT onboarding program. Develop the talent Align performance management with institutional priorities. Develop and implement formal training plans aligned with institutional goals. Provide a defined percentage of development time for core service employees for product and
Tactic 3.1 Sub Tactic 3.1.1 3.1.1.a 3.1.1.b 3.1.1.c 3.1.1.d Sub Tactic 3.1.2 3.1.2.a 3.1.2.b 3.1.2.c	Employ professionals who create success for customers Attract the talent Recruit qualified technologists to work in the restructured help desk. Develop a local, regional, and national reputation as an innovative technology organization. Provide competitive salaries without internal salary inequities Optimize the UAB and UAB IT onboarding program. Develop the talent Align performance management with institutional priorities. Develop and implement formal training plans aligned with institutional goals. Provide a defined percentage of development time for core service employees for product and professional growth.





3.1.3.b	Create career progression so employees can remain with the organization their entire careers as technical or managerial employees.
3.1.3.c	Implement a telework policy.
3.1.3.d	Develop a Praise and Progress program.
Sub Tactic 3.1.4	Develop IT Leadership
3.1.4.a	Create leadership development and succession plans.
3.1.4.b	Send at least one leader per year to Evanta Professional Development Academy or a similar development opportunity.
3.1.4.c	Form an IT Excellence Speaker series.
3.1.4.d	Establish lunch with the CIO meetings.
3.1.4.e	Present leadership development updates and opportunities in our UAB IT newsletter
3.1.4.f	Host an annual leadership retreat.
3.1.4.g	Rotate leaders into peer roles through stretch assignments.
Objective 4: UAB IT will strive to receive positive recognition from internal departments, peer institutions, and IT industry organizations.	
No	Tactics Tactics
Tactic 4.1	Influence organizational reputation through appropriate publishing of industry related white papers and speaker presentations.
4.1.a	2 presentations per year
4.1.b	2 publications based on existing or emerging technologies.
4.1.c	Achieve a positive net promoter score (NPS) across all services and customers.
Tactic 4.2	
1 40010 4.2	Influence organizational reputation through appropriate board and professional organization representation across the UAB IT department.
4.2.a	
	representation across the UAB IT department.

Imperative 4: Generate business value through reduced costs, process innovation, and revenue generation.

Objective 1: Generate business value through reduced costs.	
No	Tactics
Tactic 1.1	Develop agile processes to ensure that all IT purchases are coordinated before purchase.
1.1.a	Create process maps for primary types of purchases across campus such as software, hardware, and consulting services.
1.1.b	Create a consulting function that facilitates the selection of IT services to optimize the purchasing process.
Tactic 1.2	Eliminate redundant systems when applicable.
1.2.a	Create list of systems, functions, owners and level of effort needed by technical and functional resources to maintain identified systems.
1.2.b	Identify systems that could be cut with no impact to services.
1.2.c	Identify systems with overlapping functionality. Discuss with owners the possibilities of converging to the minimal number of required systems.
1.2.d	Review recommendations with a governance (that represents the major units) committee prior to implementation.
1.2.e	Create a process to maintain and review at regular intervals the list of systems.
1.2.f	Develop a process to inform the campus about software that is available to them so they take advantage of what UAB owns rather than purchasing additional software.
Tactic 1.3	Determine which IT services should be centralized, what services should be managed by distributed IT and what services should be moved to the cloud.
1.3.a	Develop targeted list of services.
1.3.b	Review recommendations with a governance committee prior to changes.
1.3.c	Create a process to maintain and review at regular intervals the list of services.
Tactic 1.4	Develop processes to enable effective use of funds for technology purchases that includes measuring return on investment and alignment to strategy before engaging work on new projects.
1.4.a	Establish processes developed and ratified by governance group.
1.4.b	Replace a paper-based contract system with a mobility enabled electronic signature system and digital repository system.
Tactic 1.5	Determine if the benefit of technology related to security services outweigh the cost to provide them.
1.5.a	Develop a list of security services, the cost to maintain them and the value provided. Focus on areas such as FISMA and other high cost services.





Objective 2: Generate value through process innovation.	
No	Tactics
Tactic 2.1	Build a culture of innovation and develop a program to reward campus IT employees for significant IT innovations.
2.1.a	Provide Six Sigma green belt training for 20 UAB employees. Establish fifteen UAB IT green belts by December 31, 2016.
2.1.b	Provide Design Thinking training for 20 UAB IT staff members.
2.1.c	Develop a program to reward campus IT employees for IT innovations.
Tactic 2.2	Increase efficiency and decrease technical administrative burden through process improvement and automation.
2.2.a	Identify resources to dedicate to process improvement and automation.
2.2.b	Define base levels of time to be spent on operational and maintenance work compared to work that grows or transforms the organization.
2.2.c	Develop a structure to identify and prioritize which processes (internal and external to IT) should be reviewed. Areas to be considered are automated testing and communicating the return on "investment" to donors.
2.2.d	Analyze the prioritized processes, goal is five per year, develop recommendations and implement changes.
2.2.e	Increase availability of growth and transform resources.
2.2.f	Replace a fax-based receipt system with an electronic system.
2.2.g	Replace the Oracle human resources and financial system with a modern ERP system.
2.2.h	Implement Kronos as a campus wide standardized timekeeping system.
2.2.i	Identify a strategy to enable mobile support for all applications.
Tactic 2.3	Involve customers in innovation.
2.3.a	Develop processes to involve customers to prioritize, track and communicate innovations.
2.3.b	Collect feedback from innovation pilots and ensure that communication flows to customers.
Tactic 2.4	Set aside a fund to support UAB operational technology innovation across campus.
2.4.a	Savings from reducing costs will be used to budget the innovation fund.
Tactic 2.5	Develop the structure to identify, implement and communicate what is being done across campus that can be brought together, expanded upon, and what we need to start.
2.5.a	Participate in Birmingham Innovation week.
2.5.b	Create a technology fair that showcases technology from central and distributed IT, as well as vendors.



Objective 3: Generate value through revenue generation.	
No	Tactics
Tactic 3.1	Increase philanthropy through the use of technology
3.1.a	Develop processes to more easily capture and communicate the return on donations to donors.
Tactic 3.2	Increase revenue through expansion of student enrollment, retention and graduation.
3.2.a	Partner with business leaders to determine how technology and changes to processes can increase student enrollment, retention and graduation.
Tactic 3.3	Partner with UAB leaders to increase research funding.
3.3.a	Enhance the Assured Computing Platform to support compliance requirements (FISMA, HIPAA) to increase funded research
3.3.b	Expand High Performance Computing platform to support the ability to win grants.
3.3.c	Focus research computing on licensable IPs.



Imperative 5: Innovate UAB through partnerships with institutional business owners with a focus on academic and research operations.

Objective 1: UAB IT will build trust and confidence that IT will deliver services in an effective and reliable manner.

	reliable manner.
No	Tactics
Tactic 1.1	Promote a reliable and consistent campus technology architecture
1.1.a	Define list of core "Bill of Rights" services available to the university.
1.1.b	Communicate complete list of core "Bill of Rights" services available to the university.
1.1.c	Provide centralized method for communicating technology solutions available across campus in order to make it easy for the academic and research community to utilize the same tools without discouraging innovation coming out of individual departments.
1.1.d	Provide integration capabilities for separate university systems where feasible.
Objective	2: UAB IT will ensure that it provides innovative and cost effective approaches to technology needs.
No	Tactics
Tactic 2.1	Provide technology solutions that streamline existing manual processes across the university.
2.1.a	Implement a university-wide adopted electronic approval/signature process.
2.1.b	Facilitate web related technology assessments.
2.1.c	Provide a common technology mechanism to enhance the accreditation process.
Tactic 2.2	Create campus educator, researcher, and student support processes enabled by technology solutions.
2.2.a	Partner with campus educators (faculty & non-faculty) to facilitate a centrally managed campus educator site for resources available (include onboarding).
2.2.b	Partner with Student Affairs and Student Services to design a technology-based process that seamlessly supports recruitment, enrollment, retention, and graduation efforts.
2.2.c	Partner with the research community to design a technology-based process that supports initial proposal/grant writing, operational research activity, through to the preservation of research data.
2.2.d	Facilitate faculty adoption of electronic instructional materials, including open-source, that integrate with learning systems that reduce costs to students.
2.2.e	Provide centralized method for communicating faculty-senate approved alternative source materials available for class preparation and student use.
Tactic 2.3	Build a UAB IT innovation/emerging technologies program that focuses on ways to advance the technology infrastructure of the university.
2.3.a	Showcase innovative/emerging technology service platforms available from other departments that contribute to the defined technology infrastructure of UAB.

- Identify and cultivate subject matter experts, who can consult across the campus, and who become 2.3.b champions for new technologies that drive innovation.
- Set aside IT resources dedicated to working with campus educators and researchers to understand 2.3.c emerging needs.
- Identify IT leaders on campus to become champions/sponsors of university-wide technology 2.3.d initiatives.

Tactic 2.4 Facilitate partnership with UAB Communications web support division.

- 2.4.b Evaluate content management system (CMS) options for UAB sites.
- Provide set of web-related best practices to UAB website owners on how to mitigate page errors, 2.4.c maintain valid pages, and avoid broken links through application of the best practice principles.

Objective 3: UAB IT will empower stakeholders by leveraging existing resources for university

Objective 3: UAB II will empower stakeholders by leveraging existing resources for university technology needs.	
No	Tactics
Tactic 3.1	Create an accessible, secure, and collaborative data processing architecture where sensitive data can be accessed.
3.1.a	Provide a security architecture to support storing and accessing sensitive data.
3.1.b	Create a restricted and collaborative university health sciences data environment.
3.1.c	Provide researchers with access to data storage, robust networks, and enhanced compute capabilities.
3.1.d	Deploy an internal research network.
3.1.e	Increase campus connectivity to the internet to 100 Gbps.
3.1.f	Increase default desktop connectivity for our internal network to 1 Gbps.
Tactic 3.2	Involve all university IT areas in technology discussions to help define implementation priorities, technology solutions, and funding.
3.2.a	Identify list of duplicative systems and resources across schools and departments.
3.2.b	Provide the list created for 3.2.a to the appropriate shared governance bodies.
3.2.c	Promote a reduction in duplicative systems and resources across the university.
3.2.d	Emphasize a collaborative technology approach that invites faculty, researchers, and students to provide input for system design, product selection, and continuous evaluation of existing products that impact the university.
3.2.e	Create integrated interfaces to support a coordinated university technology roadmap.
3.2.f	Partner with campus educators and researchers to identify and support technology solutions that alleviate the current challenges impacting higher education.
3.2.g	Create a process for providing input on potential technology purchases that involve university-wide adoption.





Tactic 3.3	Promote the sharing of technology resources in order to create a university network to identify expertise and enable group innovation.
3.3.a	Establish a centralized and intuitive channel for finding and requesting new university technology services from campus technology resources, including UAB IT.
3.3.b	Create a centralized university informational site to support collaboration needs.
3.3.c	Provide continuous technology guidance and training opportunities to campus educators and researchers in order to leverage enhanced features available in the latest product versions.
Objective	4: UAB IT will assist with the creation of a community of technology practices that promotes collaboration across the university.
No	Tactics
Tactic 4.1	Provide learning and training opportunities within UAB IT.
4.1.a	Create internship, work-study, group project, and mentorship opportunities within UAB IT.
4.1.a 4.1.b	Create internship, work-study, group project, and mentorship opportunities within UAB IT. Sponsor or host regular forums for interaction, training, and collaboration around specific technology topics of interest.
	Sponsor or host regular forums for interaction, training, and collaboration around specific
4.1.b	Sponsor or host regular forums for interaction, training, and collaboration around specific technology topics of interest.
4.1.b 4.1.c	Sponsor or host regular forums for interaction, training, and collaboration around specific technology topics of interest. Create a student-focused talent pipeline for providing university internships. Inform the student community through involvement, participation, and sponsorship of student
4.1.b 4.1.c 4.1.d	Sponsor or host regular forums for interaction, training, and collaboration around specific technology topics of interest. Create a student-focused talent pipeline for providing university internships. Inform the student community through involvement, participation, and sponsorship of student centered activities and events.
4.1.b 4.1.c 4.1.d Tactic 4.2	Sponsor or host regular forums for interaction, training, and collaboration around specific technology topics of interest. Create a student-focused talent pipeline for providing university internships. Inform the student community through involvement, participation, and sponsorship of student centered activities and events. Create a comprehensive campus technology communication process.



Imperative 6: Foster an institutional data-driven decision-making culture that allows UAB to make informed and optimal decisions.

	Objective 1: Establish priorities and shared governance in data management.
No	Tactics
Tactic 1.1	Establish an institutional point of contact for data management.
1.1.a	Hire a Chief Data Officer.
Tactic 1.2	Survey executives annually to determine reporting needs.
1.2.a	Establish a prioritized and vetted list of enterprise (campus, hospital and LLC) administrative reporting needs.
1.2.b	Establish an annual review & update process.
Tactic 1.3	Charter data-focused shared governance bodies.
1.3.a	Charter a UAB executive data oversight governance body.
1.3.b	Charter a functional data governance body for academic and administrative data.
1.3.c	Charter a technical data governance body for academic and administrative data.
1.3.d	Emphasize data responsibility by developing a data awareness program.
1.3.e	Define hierarchy and external reporting governance.
Objective 2:	Create a robust and flexible data management architecture based upon the funding secured.
No	Tactics
Tactic 2.1	Secure resourcing to implement the five-year plan.
Tactic 2.2	Build a detailed five-year plan to create a robust and reporting architecture.
2.2.a	Architecture approved by data governance bodies.
2.2.b	Establish a data classification standard (include definition of enterprise risk factors as part of the policy).
Tactic 2.3	Create a common data dictionary.
2.3.a	Create a common data dictionary approved by all three governance bodies.
2.3.b	Establish a quarterly process to update the data dictionary.
Tactic 2.4	
ractic 2.4	Implement data validators based on data dictionary.
2.4.a	Implement data validators based on data dictionary. Prioritize high impact data validators as defined by the governance bodies.





Tactic 2.5	Implement self-service reporting.
2.5.a	Publish a data processing diagram.
2.5.b	Create individual dashboards for UAB Executive Cabinet and Deans.
2.5.c	Generate unique community reports.

Objective 3: Create an environment that will encourage all areas to adopt and support a data-driven decision-making (3DM) framework.	
No	Tactics
Tactic 3.1	Identify a point of contact in each area to support data-driven decision making framework needs.
3.1.a	Define the roles and responsibilities of area data champions.
3.1.b	Identify and train at least one data champion per functional area and college.
Tactic 3.2	Establish a virtual web-based 3 Dimensional (3DM) Competency Center.
3.2.a	Define the structure and responsibility of the 3DM competency center.
3.2.b	Create a data/reporting 3DM toolkit (include decision tree templates along with Q6 and Lean tools and templates).
3.2.c	Conduct monthly 3DM workshops and training.

Tactic 3.3 Adopt 3DM employee awareness training as part of departmental onboarding processes.

Imperative 7: Enhance the community of information technology excellence for the economic, social, and cultural benefit of Birmingham and beyond.

Objective 1: Empower Birmingham through an enhanced community of information technology excellence promoting growth, strength, and collaboration.

excellence promoting growth, strength, and collaboration.	
No	Tactics
Tactic 1.1	Strengthen the Birmingham IT ecosystem by partnering UAB IT with the nonprofit organization TechBridge in order to drive community impact by bringing affordable technology and business experience to other nonprofits.
1.1.a	Participate as an advisory board member from UAB IT.
1.1.b	Host a TechBridge event every other year at UAB.
1.1.c	Promote growth through an increase in UAB attendance or UAB sponsored attendance at TechBridge Birmingham Annual Dinner by 15% every year.
1.1.d	Promote growth through an increase in UAB participation in TechBridge gift giving by 15% annually.
1.1.e	Promote growth of TechBridge to a statewide organization by hosting annual events every year for the next three years.
1.1.f	Create at least ten (10) UAB/TechBridge partnerships over the next three years.
Tactic 1.2	Strengthen the Birmingham IT ecosystem by facilitating centralized communication for IT professionals to plug into local needs.
1.2.a	Communicate/highlight ways UAB IT can give back to the local technology community through TechBridge participation.
1.2.b	Promote TechBirmingham monthly events in an effort to increase UAB attendance by 5-10% each year for the next three years.
1.2.c	Identify 10 key business partners and encourage them to join TechBirmingham per year
1.2.d	Broker internships through an annual event hosted through UAB for top tier students from each department.
1.2.e	Promote TechBirmingham events and calendar of activities to UAB IT employees and the UAB community as a whole
1.2.f	Provide reoccurring UAB IT update and events for inclusion on the TechBirmingham website and calendar.
1.2.g	Provide UAB IT website information for inclusion on Tech Birmingham's "Community Resources" page.
1.2.h	Present at TechBirmingham monthly meeting as often as the presentation schedule allows.
Tactic 1.3	Strengthen the Birmingham IT ecosystem as an advisory board member of the InfraGard Association.
1.3.a	Participate as an advisory board member for UAB IT.





1.3.b	Promote InfraGard monthly events in an effort to increase UAB attendance by 5-10% each year for the next three years.
1.3.c	Present annually at InfraGard monthly meeting.
1.3.d	Promote regional collaboration with security as the focus.
1.3.e	Advertise Infragard events across UAB IT and related campus IT departments.
Tactic 1.4	Strengthen the Birmingham IT ecosystem through membership in SIM, CIO Breakfast series, IT Symposium, IT Junction, and other IT organization and events.
1.4.a	Participate as advisory board member of 50% of these organizations or events.
1.4.b	With the exception of the CIO Breakfast, promote growth through UAB in an effort to increase UAB attendance to events by 10% annually.
Tactic 1.5	Support the creation of a Birmingham Technology Advisory Board/Economic Development council to foster intentional technology communication between business/highereducation/government industries.
1.5.a	Work with appropriate partners to identify and invite local and regional technology leaders to participate.
1.5.b	Help establish quarterly meeting schedule for the advisory board/council.
1.5.c	Participate as a founding member for UAB IT.
Tactic 1.6	Participate in the formation of an Innovation District
1.6.a	Extend UAB's fiber network to Innovation Depot, without limiting future UAB growth capabilities, introducing security risks, or degrading the quality of service provided to UAB enterprise users.
1.6.b	Extend UABSecure wireless network to support UAB faculty and students working in Innovation Depot.
1.6.c	Extend UAB secured access networks to areas around Innovation Depot to support an Innovation District without introducing security risks to the UAB network or degrading the quality of service provided to UAB enterprise users.
1.6.d	Participate as part of committees involved with Innovation District initiatives.
Tactic 1.7	Create a competitive advantage for recent UAB graduates encouraging them to stay in Birmingham and the region.
1.7.a	Host a proactive recruitment event for regional businesses and technology students to help align the needs of the community with the talent available.
1.7.b	Proactively work with the computer sciences faculty to provide community based feedback regarding technology needs to help develop relevant course offerings.
1.7.c	Incentivize economic development of Birmingham through IT expansion.
1.7.d	Help facilitate the conversation between business leadership and new IT companies.
1.7.e	Create a UAB alumni email solution for recent graduates.
1.7.f	Create a UAB recent alumni solution for data storage and backup in Birmingham.



1.7.g	Create a UAB recent alumni solution for access to UAB wireless networks in Birmingham.
1.7.h	Create a UAB recent alumni solution for access to UAB high performance research computing.
Tactic 1.8	Support the Birmingham K-12 school district.
1.8.a	Serve as co-chair of the technology innovation committee for the Birmingham K-12 school district.
1.8.b	Explore and execute opportunities for partnership with K-12 to empower student success.
Tactic 1.9	Support the greater Birmingham community through participation in organizations such as Rotary, Kiwanis, and Habitat for Humanity, and Benevolent Fund.
1.9.a	Participate in Birmingham's Innovation Week by hosting events across campus/advertising.
Tactic 1.10	Support the efforts of local economic development groups as they work to recruit and retain employees.
1.10.a	UAB IT CIO will ensure that existing employer IT needs are being met by partnering with the CIO Leadership Council, BBA, and major IT companies to ensure UAB is meeting the workforce needs of companies.
1.10.b	Create a point person to participate with local economic development organizations as they respond to inquiries from prospective and existing companies with heavy IT occupational needs.
	: Use UAB IT's status as a world-class organization to enhance the community of information by excellence at a state level, giving Alabama a competitive edge economically, socially, and culturally.
	y excellence at a state level, giving Alabama a competitive edge economically, socially, and
technolog	y excellence at a state level, giving Alabama a competitive edge economically, socially, and culturally.
technolog No	y excellence at a state level, giving Alabama a competitive edge economically, socially, and culturally. Tactics Develop a statewide educational and research network that creates a competitive advantage
No Tactic 2.1	Tactics Develop a statewide educational and research network that creates a competitive advantage for the state. Develop and deploy dual institutional connectivity to Internet/Internet2 at 100 Gigabits per second
No Tactic 2.1 2.1.a	Tactics Develop a statewide educational and research network that creates a competitive advantage for the state. Develop and deploy dual institutional connectivity to Internet/Internet2 at 100 Gigabits per second or higher.
No Tactic 2.1 2.1.a 2.1.b	Tactics Develop a statewide educational and research network that creates a competitive advantage for the state. Develop and deploy dual institutional connectivity to Internet/Internet2 at 100 Gigabits per second or higher. Deploy an Akamai internet regional cache to maximize UAB internet connectivity.
No Tactic 2.1 2.1.a 2.1.b 2.1.c	Tactics Develop a statewide educational and research network that creates a competitive advantage for the state. Develop and deploy dual institutional connectivity to Internet/Internet2 at 100 Gigabits per second or higher. Deploy an Akamai internet regional cache to maximize UAB internet connectivity. Support and develop networks at UAB, UAH, and UA at 100 Gigabits per second or higher.
No Tactic 2.1 2.1.a 2.1.b 2.1.c 2.1.d	Tactics Develop a statewide educational and research network that creates a competitive advantage for the state. Develop and deploy dual institutional connectivity to Internet/Internet2 at 100 Gigabits per second or higher. Deploy an Akamai internet regional cache to maximize UAB internet connectivity. Support and develop networks at UAB, UAH, and UA at 100 Gigabits per second or higher. Explore opportunities to link and strengthen the Montgomery Internet exchange. Explore opportunities to partner and deploy new data centers on a statewide network in support of
No Tactic 2.1 2.1.a 2.1.b 2.1.c 2.1.d 2.1.e	Tactics Develop a statewide educational and research network that creates a competitive advantage for the state. Develop and deploy dual institutional connectivity to Internet/Internet2 at 100 Gigabits per second or higher. Deploy an Akamai internet regional cache to maximize UAB internet connectivity. Support and develop networks at UAB, UAH, and UA at 100 Gigabits per second or higher. Explore opportunities to link and strengthen the Montgomery Internet exchange. Explore opportunities to partner and deploy new data centers on a statewide network in support of education, research, and government. Support the efforts of state economic development groups as they work to recruit and
No Tactic 2.1 2.1.a 2.1.b 2.1.c 2.1.d 2.1.e Tactic 2.2	Tactics Develop a statewide educational and research network that creates a competitive advantage for the state. Develop and deploy dual institutional connectivity to Internet/Internet2 at 100 Gigabits per second or higher. Deploy an Akamai internet regional cache to maximize UAB internet connectivity. Support and develop networks at UAB, UAH, and UA at 100 Gigabits per second or higher. Explore opportunities to link and strengthen the Montgomery Internet exchange. Explore opportunities to partner and deploy new data centers on a statewide network in support of education, research, and government. Support the efforts of state economic development groups as they work to recruit and retain employees. Create a point person to participate with state economic development organizations as they
No Tactic 2.1 2.1.a 2.1.b 2.1.c 2.1.d 2.1.e Tactic 2.2	Tactics Develop a statewide educational and research network that creates a competitive advantage for the state. Develop and deploy dual institutional connectivity to Internet/Internet2 at 100 Gigabits per second or higher. Deploy an Akamai internet regional cache to maximize UAB internet connectivity. Support and develop networks at UAB, UAH, and UA at 100 Gigabits per second or higher. Explore opportunities to link and strengthen the Montgomery Internet exchange. Explore opportunities to partner and deploy new data centers on a statewide network in support of education, research, and government. Support the efforts of state economic development groups as they work to recruit and retain employees. Create a point person to participate with state economic development organizations as they respond to inquiries from prospective and existing companies with heavy IT occupational needs. Strengthen the Birmingham and Alabama IT ecosystem through the creation of an Alabama





2.3.c	Recruit at least twenty (20) CIOs as founding members with at least \$100 million in annual revenues.
2.3.d	Promote the CIO Leadership Association in an effort to increase statewide membership by 15% annually.
2.3.e	Promote growth through UAB in an effort to increase corporate sponsorship by 15% annually.
2.3.f	Create an Alabama CIO of the Year Awards program.
2.3.g	Sponsor an Insider event within three years of the formation of the Alabama CIO Leadership Association.
Objective 3: Enhance the community of information technology excellence at a federal level and beyond.	

appendix B

UAB Institutional Priorities

The UAB strategic institutional priorities reflect the overall target for aligning our resources with our aspirations.

PHILANTHROPIC CAMPAIGN AND BRANDING INITIATIVES: UAB IT has supported the philanthropic campaign through telecommunication changes and enhanced reporting for the Advancement office. UAB is partnering to develop new mechanisms to support philanthropic campaigns and branding initiatives such as alumni email (once UAB, always UAB), ticketing system business intelligence, location based engagement, improved reporting dashboards and enhanced advancement software.

Athletics plays a large role in public perception of institutions, and UAB IT is assuming IT support for UAB athletics to lower costs, enhance service, and provide a competitive advantage. Intelligent facility design, responsive desktop support, fan engagement through mobile applications, and innovative use of technology to create a distinctive home field advantage are characteristics of our support.

Finally, modernizing and unifying UAB's web communications as well as its approach to customer relationship management (CRM) will be foundational steps to strengthen future philanthropic campaigns and provide consistent and constructive branding to UAB. Both initiatives create branding and philanthropic opportunities for UAB through more consistent and personalized communications.

INFORMATION TECHNOLOGY: This document details support for this strategic initiative in great detail. UAB IT must embrace a cloud first, mobile only, data driven approach that leverages central and distributed IT to provide UAB with the appropriate mix of agility, cost effectiveness, and innovation that results in a competitive advantage for UAB students, faculty, researchers, and staff.

RESEARCH COMPUTING, BIG DATA AND ANALYTICAL CAPACITY: UAB IT continues to fund research computing through its strategic reserves and partner on collaborative grant efforts to strengthen UAB research computing. In the past year, UAB IT has implemented or pursued funding to implement a quadrupling of research compute, storage and network capability. Funding must shift from UAB IT strategic reserves to a more sustainable basis, and the commitment by the Vice President for Research for \$500,000 per year in indirect costs is a step in the right direction. Working through shared governance and at the direction of President Watts, UAB IT is partnering to develop a strategic research computing plan to move UAB into the top 500 research computing institutions in the world. Based on studies of competitive institutions with similar goals, this will require an investment of appropriately \$5 million per year. Based on previous studies, this investment should result in \$185 million in institutional revenue and \$352 million profits/cost savings.

RESEARCH SUPPORT AND ADMINISTRATION: UAB IT, in partnership with Research Administration, continues to implement and enhance the IRAP system to increase the efficiency and efficacy of administering research. The IRAP system enables researchers and their staff to spend less time on administration tasks and more on research. Between 2014 and 2015, processing times for receiving Material Transfer Agreements have dropped 35 percent on average (about 17 days), and processing times for initial protocols by the Institutional Animal Care and Use Committee have dropped 30 percent (about 20 days). Numerous enhancements are ongoing or planned to increase the efficiency and efficacy of administering research in partnership with Research Administration.

UAB IT is also partnering with the Provost to implement and enhance the faculty contribution system to empower faculty contributions to their research, teaching, and service roles at UAB. Like IRAP, this system enables researchers and their staff to spend less time on administration tasks and more time on research.

INSTITUTE FOR INNOVATION AND ENTREPRENEURSHIP (IIE) AND TECHNOLOGY TRANSFER: For the institute for innovation and entrepreneurship to thrive, the Birmingham technology community and its partnership with UAB must grow. UAB IT is actively involved with growing the Birmingham technology community through board memberships to TechBridge, TechBirmingham, TechJunction, and InfraGard and active membership with other Birmingham technology associations. UAB must increase the breadth and depth of support for the technology community to grow Birmingham innovation, entrepreneurship, and technology transfer.





Creating a competitive advantage for UAB graduates for innovation and entrepreneurship through partnership with Birmingham is an area of ongoing consideration of shared bandwidth, storage, email and other potential initiatives, in order to facilitate a Birmingham ecosystem that supports recent UAB graduates so that they are encouraged to stay in Birmingham and Alabama.

Components of the IRAP system will be used to manage the full life cycle of technology transfers. In partnership with research administration and economic development, this module is scheduled for implementation by December 2016.

LIBRARIES AND SCHOLARLY JOURNAL/INFORMATION ACCESS: UAB IT and UAB libraries continue to partner to offer enhanced services to students, faculty and staff. This partnership includes the location of a help desk in Sterne library, support for common area computing resources at Sterne and Lister Hill libraries, and procurement of support for a state of the art library management system and separate data preservation system. Data curation is another area of possible collaboration and partnership.

GRADUATE STUDENT EDUCATION AND POSTDOCTORAL TRAINING SUPPORT: UAB IT supports graduate and postdoctoral education via the student administration applications. Plans include evaluating a solution for recruiting of graduate and online students.

ONLINE EDUCATION AND ELEARNING PROGRAMS/DEGREES/CERTIFICATES: UAB IT works closely with the division of eLearning and Professional Studies to support the UAB learning management system Canvas and ensure integrations among other UAB systems. Areas of active development include enhanced processes for new faculty members to have early access to Canvas, faculty control of course publication, automatic import of grades into the student information system, and other initiatives. Future collaboration includes active utilization of student data from Canvas to support intrusive advising.

Student life enrichment opportunities and initiatives: Students are always the center of gravity for all operations and development in UAB IT. Student engagement is based on cloud first, mobile only strategy that leverages location to tailor services. Foundational to this strategy is UAB's modern and redundant internet and wireless networks which continue to grow in capacity and coverage. This connectivity provides access to a growing number of enterprise applications that are cloud-based and accessible regardless of physical location, including a wireless expansion into open areas, athletic facilities, parking lots, and even UAB buses.

Essential to this access is mobile application development so that essential academic, administrative, and research tasks can be completed anywhere and at any time through an integrated, role-based application framework. This capability currently does not exist in a unified system at UAB.

We support student events such as the UAB eSports Initiative and sponsor the GoodGames UAB (ggUAB) student group.

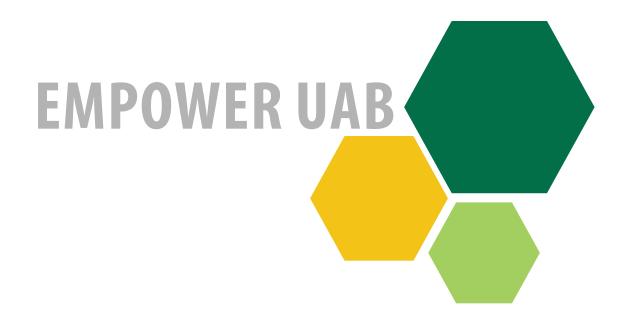
INTERNATIONAL STUDENT RECRUITMENT STRATEGIC ANALYSIS AND SUPPORT PLAN: UAB IT has been a foundational partner in addressing the technology needs for recruiting international students. This includes supporting Academic Affairs and the INTO partnership by integrating UAB technology systems and INTO systems.

UNDERGRADUATE ADMISSIONS INITIATIVES: UAB IT partners with departments to increase student recruitment. Most recently, processes were changed to provide a more seamless experience for prospective students seeking to learn more about UAB. This includes redesigning the student campus visit process from a 17-step process to a two-step process. The undergraduate admissions application has been redesigned to provide a better user experience. Significant process design is needed to make the student application and admissions process seamless.

GROWTH OF HONORS COLLEGE PROGRAMS AND OPPORTUNITIES: UAB IT partners with the Honors College to provide computing support for faculty and staff. Recently we have created a registration application for prospective students to be considered for the college's programs. Plans are in place to add the college's scholarships into UAB's scholarship application.

BUILDING A SUSTAINABLE CAMPUS: As UAB IT replaces or enhances services, it constantly looks at energy usage, specifically in the power and cooling needs of infrastructure. As UAB grows, information technology needs will grow, and sustainability is one of the criteria considered as new or expanded technology choices are considered. Consolidation of servers from existing central and distributed IT locations into a single, cost-efficient and secure computing environment will be foundational for building a sustainable campus from a technology perspective.







Knowledge that will change your world