The University of Alabama at Birmingham
Information Technology
Strategic Plan
2011-2013
Table of Contents

Message from the Vice President ................................................................. 3
About UAB ....................................................................................................................... 4
About UAB Information Technology
  Meeting needs through technology solutions ................................................. 4
  Organizational Structure ....................................................................................... 5
Planning for the Future
  Methodology ............................................................................................................. 6
  Objectives .................................................................................................................. 6
  Components ............................................................................................................... 6
Outlining the IT Strategic Plan
  Vision ......................................................................................................................... 7
  Mission ......................................................................................................................... 7
  Values ........................................................................................................................ 7
  Guiding Principles ..................................................................................................... 7
  Constituents and Domains ....................................................................................... 7
UAB IT Goals
  Empowering Research and Scholarship ............................................................... 8
  Supporting Teaching and Learning ........................................................................ 9
  Meeting Student Needs ........................................................................................... 10
  Supporting University Operations and Administration ....................................... 11
  Providing a Shared Technology Framework ....................................................... 12
  Strengthening UAB Information Technology .................................................... 13
Strategic Planning Team .......................................................................................... 14
The University of Alabama at Birmingham  
Information Technology 
Strategic Plan 2011-2013 

Message from the Vice President

I am pleased to introduce to you the 2011-2013 Strategic Plan for UAB Information Technology (UAB IT). This plan is the basis from which we will achieve our long-range goals, while providing the UAB community with support and customer service that is second to none.

As you read through this document, you will see the results of the collaborative efforts of the Strategic Planning Team. We developed new goals, a new mission and vision, and clarified the core values and guiding principles which will shape our efforts in the coming years.

Each of these was developed from feedback obtained from surveys given to UAB faculty, staff, students, and researchers. Our focus is on the needs of the UAB community. We will continue to seek demands and opportunities for the present and future, while developing a plan that is flexible enough to change with the fast-moving IT industry.

I wish to thank the UAB campus community for the support and participation during our process.

E. Douglas Rigney, PhD, PE  
Interim Vice President for Information Technology  
Professor Biomedical Engineering
About UAB: A first choice for education and health care

Dynamic. UAB is a young, dynamic university that has, over four decades, won international recognition for its leading-edge research, health care and academic programs. Comprising some 86 city blocks, UAB has an enrollment of more than 16,800 and is ranked among the top 15 percent of all U.S. universities (and third in the “diverse student population” category) by The Princeton Review.

Research Excellence. The university’s robust research enterprise attracts more than $400 million annually in external research funding, consistently ranking in the top 25 in funding from the National Institutes of Health, and is among 96 public and private universities (and the only Alabama university) classified as an institution of “very high research activity” by the Carnegie Foundation. UAB was also named among the Top 5 Best Places to Work in Academia in The Scientist magazine in 2009.

Healthcare Innovation. UAB Hospital is home to the state’s only adult level 1 trauma center and is among 3 percent of hospitals nationwide—and the only one in Alabama—to make the U.S. News list of “Best Hospitals” (ranked 19 straight years).

Economic Powerhouse. UAB is the state’s largest single employer—with more than 18,000 employees and some 56,000 jobs statewide related to the university and health system—and has a $3.6 billion annual impact on the state of Alabama.

About UAB IT: A trusted technology partner

UAB’s vision is to be an internationally renowned research university—a first choice for education and health care. Supporting this vision is a team of information technology professionals who provide a robust technology infrastructure and specialize in deploying enterprise-class solutions for teaching, learning and research.

UAB IT is the central information technology organization charged with providing enterprise solutions in support of the academic mission of the institution. Under the leadership of CIO Dr. Doug Rigney, UAB IT is responsible for all applications and systems that are provided centrally to support UAB’s administration, researchers, faculty, and students.
Meeting needs through technology solutions

UAB IT employs 200+ technology professionals with expertise in the fields of:

- data management
- business analysis
- internet and intranet website development
- applications development
- database management
- access control
- electronic, voice and data communications
- networking
- project management
- systems integration
- information security
- client support
- server management
- instructional technology
- regulatory and commercial compliance
- high performance and grid computing
- infrastructure engineering
- data center management
- IT governance

Organizational Structure

The UAB IT organization is structured as follows:
Planning for the Future

Methodology

The strategic planning methodology focused on people, processes, and technology. The first phase of the planning process documented current state and baselines. Snapshots were created of specific IT domains including voice and data networks, data center, desktop, research, student, administration, and faculty communities. Surveys were developed for each user community as well as UAB Information Technology (UAB IT) employees, and the results were synthesized. Interviews were conducted with senior leadership across UAB.

The second phase of the planning process compared the current state of IT to the desired future state by performing a gap analysis. The Galbraith Star methodology was used to document both “how we are today” versus “how we should be”. The planning team developed a vision statement, a mission statement, guiding principles, core values, goals, objectives and strategies and measures that align with the university’s vision, mission, and goals.

The final phase of the planning process was to prioritize strategic projects that enable the strategic plan to be achieved.

Objectives

The strategic planning process was undertaken with the following objectives:

- Align with UAB’s vision, mission, goals and objectives
- Align with functional needs
- Baseline the current state of UAB technology
- Define the future state of UAB technology
- Optimize resources—people, process, and technology
- Prioritize strategic technology projects

Components

The strategic plan contains the following components:

- UAB IT mission and vision statements
- UAB IT core values and guiding principles
- Information technology needs assessment and analysis
- Snapshot of technology deployed across UAB
- Recommendation for resource optimization—people, process, and technology
- List of objectives, goals, strategies, and measures
Outlining the IT Strategic Plan

- **Vision**
  Our vision is to be the trusted technology partner for the UAB community and a recognized IT leader within our industry.

- **Mission**
  Our mission is to deliver robust solutions that are customer-focused, efficient, innovative, and secure, enabling the university community to achieve UAB’s mission.

- **Values**
  Our core values underscore the way we approach our jobs. As an organization, we believe in:
  - Excellence
  - Accountability
  - Service
  - Integrity
  - Innovation

- **Guiding Principles**
  Our guiding principles drive everything we do to support the university. All of our products and services fall under one or more of these categories:
  - **Partner** with researchers, faculty, students, administrators and academic units to provide innovative IT solutions which support UAB’s mission.
  - **Provide** technology, tools, support and infrastructure that align with the needs of the communities we serve.
  - **Protect** electronic information systems and develop data management strategies in collaboration with stakeholders.
  - **Promote** awareness of IT technology, tools, and services available to the UAB community.

- **Constituents and Domains**
  Our constituents are the customers we serve in support of UAB’s mission across the following domains:
  - Research & Scholarship
  - Teaching & Learning
  - Students
  - University Operations & Administration
  - Shared Technology Framework
  - UAB Information Technology
Empowering Research and Scholarship

- **UAB IT Goal:**
  To enable research and scholarship eminence through innovative, shared technological advances made available to researchers.

- **UAB IT Objectives and Strategies:**
  1. **Cultivate an e-research community.**
     *Strategies:*
     a. Form an institute to support research computing.
     b. Establish a governance structure to oversee shared assets and solutions.
     c. Enable the sharing of research computing resources, network and applications by participating in external clouds or grids.

  2. **Establish a sustainable funding and management structure for research computing cyber-infrastructure and services.**
     *Strategies:*
     a. Support campus research computing needs by seeking external funding for infrastructure (e.g., shared instrumentation grants).
     b. Identify ways to leverage resources in existing IT services, collegiate IT groups, and faculty labs.
     c. Partner with researchers and administration to develop sustainable funding models.

  3. **Enhance existing IT services to align with the needs of the research community.**
     *Strategies:*
     a. Promote awareness of IT services and tools for researchers.
     b. Address the specialized training needs of researchers.
     c. Enhance the UAB network to include the deployment of IPV6, DNS-SEC and ubiquitous 100Mb connectivity.
     d. Pilot a condor cluster.
     e. Expand the electronic researcher notebook (toolkit).
     f. Explore the SOX research private cloud storage and backup solution.

  4. **Protect and secure electronic information and IT systems.**
     *Strategies:*
     a. Formalize an information security plan for the research community.
     b. Create a research data management plan and framework designed to protect research data to support bio-information while promoting research collaboration and data sharing.
     c. Develop best practices and standards for information security (onsite and hosted).
     d. Expand business continuity planning and disaster recovery preparedness.
Supporting Teaching and Learning

- **UAB IT Goal:**
  To provide innovative technology that enables learning.

- **UAB IT Objectives and Strategies:**
  1. **Identify and adopt technology and tools that align with the university’s needs.**
     
     **Strategies:**
     a. Establish an academic advisory council to provide technology guidance for classroom and online environments.
     b. Extend the learning environment to mobile devices.
     c. Expose faculty to emerging technologies for evaluation.

  2. **Provide expanded training and support for faculty that facilitates adoption and integration of technology in the learning environment.**
     
     **Strategies:**
     a. Establish a digital learning training and support facility.
     b. Create new faculty support programs that focus on the effective use of technology.
     c. Provide multi-modal learning and support opportunities for faculty.
     d. Develop a communication plan that informs faculty about IT resources available to support teaching and learning.

  3. **Ensure adopted technologies are secure and reliable.**
     
     **Strategies:**
     a. Establish a framework that provides for appropriate archiving and data retention to ensure a high level of continued system performance.
     b. Ensure system/tool performance standards are measured and in line with contract commitments.
     c. Investigate digital rights management options and best practices.
Meeting Student Needs

▪ UAB IT Goal:
To provide consistent, accessible, personalized and collaborative environments to enhance the student experience.

▪ UAB IT Objectives and Strategies:
1. Develop a student network, hardware and software strategy.
   Strategies:
   a. Monitor network usage and proactively forecast and deploy wireless access points as needed.
   b. Enhance the self-service method for restoring service for quarantined computers.
   c. Support software initiatives to ensure student success.
   d. Create a student multimedia center.
   e. Explore options for expanding technological solutions available for students.

2. Develop a student mobile learning strategy that blends with the overall UAB mobile strategy.
   Strategies:
   a. Implement mobile applications for the learning management and student information systems.
   b. Expand mobile-enabled websites.
   c. Develop custom applications that address UAB student needs.

3. Promote student awareness about information security and privacy, appropriate use of the UAB network, IT services and campus safety initiatives.
   Strategies:
   a. Attend student orientation sessions, provide informational websites, and host a cyber-security awareness month.
   b. Support enhancements to UAB’s Emergency Management Notification System.
   c. Solicit feedback from students regarding UAB IT services.
   d. Improve communications of appropriate use of the UAB network and enhance the self-service method for restoring service.
   e. Increase awareness and utilization of UAB IT services including the software licensing program.
Supporting University Operations and Administration

- **UAB IT Goal:**
  To provide a reliable framework of integrated tools and systems to enhance efficiency, encourage collaboration, and facilitate solutions.

- **UAB IT Objectives and Strategies:**

  1. **Maximize the utilization and effectiveness of IT.**
     
     **Strategies:**
     - a. Enhance the service catalog and develop a marketing plan for IT services and tools.
     - b. Develop a framework to identify and prioritize campus-wide IT projects.
     - c. Strengthen the project management office by standardizing methodologies and tools.

  2. **Establish sustainable funding for core services.**
     
     **Strategies:**
     - a. Ensure funding for completion of the research administration information system project (IRAP) and on-going maintenance.
     - b. Identify cost efficiencies and new funding sources to support administrative systems and IT core services.
     - c. Secure funding for on-going IT costs related to payment card industry compliance.
     - d. Plan for increases in software licensing and renegotiate contracts.

  3. **Enhance existing IT services to support UAB’s operations and administration needs.**
     
     **Strategies:**
     - a. Provide an enterprise system to support the research community.
     - b. Support recruiting and retention efforts for students by providing systems that enable the university goals.
     - c. Upgrade human resources and financial enterprise resources and planning systems as required.
     - d. Provide tools and solutions that support UAB’s web presence initiatives.
     - e. Assist partners in identifying a global business intelligence solution.

  4. **Protect and secure electronic information and IT systems.**
     
     **Strategies:**
     - a. Enhance the UAB identity management solution to ensure compliance to the latest standards.
     - b. Strengthen governance and policies for data access and retention.
     - c. Ensure compliance and harden security for administrative systems.
     - d. Develop best practices and standards for information security (onsite and hosted) and implement distributed security plans.
     - e. Implement automated tool to identify and redact sensitive data.
Providing a Shared Technology Framework

- **UAB IT Goal:**
  To provide a reliable and secure shared technology framework that enhances productivity and enables global access.

- **UAB IT Objectives and Strategies:**
  1. **Maximize the utilization and effectiveness of IT.**
     *Strategies:*
     a. Form an advisory board to guide the process of solution selection and technology deployment.
     b. Inform the university community about the capabilities of the shared technology framework.
     c. Revise funding models to align with university priorities.
     d. Regularly review IT services to meet customer needs, reduce unnecessary duplication and increase efficiency.
     e. Implement standards and leverage purchasing for technologies.
     f. Expand partnerships with the university community.

  2. **Provide IT services that meet the campus needs in a cost effective, coordinated and efficient manner.**
     *Strategies:*
     a. Develop a flexible and secure architecture plan that addresses new technologies.
     b. Enhance the UAB network to include the deployment of IPV6, DNS-SEC, and 100Mb connectivity.
     c. Improve coverage of the UAB WiFi network and enhance the WiFi guest registration process.
     d. Expand the fiber cable plant.
     e. Plan, pilot, and implement Unified Communications with VOIP.
     f. Partner with the hospital to implement a distributed antenna system for hospital buildings.
     g. Plan for a consolidated data center facility.

  3. **Protect and secure electronic information and IT systems.**
     *Strategies:*
     a. Replace the identity management solution.
     b. Define data management framework.
     c. Develop best practices and standards for information security (onsite and hosted).
     d. Harden critical applications.
     e. Implement PGP encryption replacement.
     f. Expand business continuity planning for disaster recovery preparedness.
Strengthening UAB Information Technology

- **UAB IT Goal:**
  To encourage a culture of excellence in our behaviors and processes.

- **UAB IT Objectives and Strategies:**
  1. **Develop our People –** recruit, retain, and train talented IT professionals.
     *Strategies:*
     a. Develop a program to recognize and reward excellence.
     b. Review the IT Job Titles classifications to ensure competitive market position and create career progression paths for employees.
     c. Develop a cross-training strategy to encourage teamwork and pride of ownership.
     d. Create a mentoring structure to prepare for succession planning.

  2. **Improve our Processes –** align our processes to enhance efficiency and adhere to best practices.
     *Strategies:*
     a. Formalize internal governance and reporting process.
     b. Establish a formal project management methodology.

  3. **Deploy new Technologies –** implement tools that enhance UAB IT operational efficiency.
     *Strategies:*
     a. Identify and implement an inventory management system.
     b. Identify and implement a billing system which integrates with service delivery and facilitates reporting.
     c. Deploy an integrated ticket management system to streamline support and operational efficiency and reporting.

  4. **Strengthen our Structure and Support –** redesign the organization to meet the changing needs of UAB.
     *Strategies:*
     a. Create a sustainable IT funding model which is integrated with IT service delivery.
     b. Redefine the organizational service units to align with the constituents we support.

  5. **Enhance Communication –** keep our customers, employees and vendors informed.
     *Strategies:*
     a. Redefine the IT “brand” that is consistent with our vision.
     b. Deploy a new IT website.
     c. Develop a strategy for communicating with our employees and for distribution of relevant information.
The Strategic Planning Team

The UAB IT Strategic Planning process was undertaken by a team of professionals taken from throughout the information technology organization.

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