

# **The University of Georgia**

## **Office of the Chief Information Officer and Enterprise Information Technology Services (EITS)**

**5-Year Program Plan (Phase II)  
2005-2006  
5-Year Plan: 2005-2010**

**November 2005**

## STATEMENT OF VISION AND GOALS

The *Office of the CIO*, and *Enterprise Information Technology Services (EITS)* are committed to the mission of UGA as a land-and-sea-grant institution where academics come first and the research extensive university community encourages research efforts at the undergraduate and graduate levels. The *vision* set by the UGA Chief Information Officer, and senior management of *EITS*, is to return the University to the role of state and national leader, and to be recognized as the ‘first’ source for knowledge and expertise in the area of information technology based on demonstrated leadership; level of expertise; *next generation* exploration of systems and applications advancing connectivity and expanded functionality; and customer service.

This approach incorporates *enterprise technology architecture*--the linking of the University of Georgia’s mission, goals and major priorities--with the design and implementation of the University’s *core* information technology architecture, infrastructure and services. The impact of information technology and ‘information appliances’ yet to come, however, are changing the parameters for accomplishing such a vision. Descriptors such as *engagement, value added, ROI, reliability, security, convergence* and *improved quality* are drivers for organizational units responsible for leadership, management and advancement of campus *core* information architecture, infrastructure, systems and services (see: [www.eits.uga.edu](http://www.eits.uga.edu); [www.eits.uga.edu/cio](http://www.eits.uga.edu/cio)). In addition, the use of *asset management tools* is forcing institutions to assess not only capital investments, but also the required *core* system infrastructure; operating systems, hardware and software platforms; and comprehensive business and staffing model(s).

## EXTERNAL FACTORS and PLANNING PROCESS

The University’s three mission-critical goals--*Building the New Learning Environment; Research Investment; and Competing in a Global Economy*—serve as the key drivers for the institution’s information technology federated planning model. Historically, *EITS* engaged the various campus constituents in an annual discussion regarding connectivity and functionality requirements which translated into *tactical projects* comprising the basis for development of the annual *Strategic Directions*. This process linked campus community needs and requirements to the *EITS* annual budget request and staffing resources. Although comprehensive in nature, the approach did not always provide an opportunity to plan for the future or to concentrate resources on the *core systems and services* necessary to support the administrative, teaching, research and outreach mission of the institution.

As a first step in preparation for the 2005 campus information technology planning approach, *EITS* Senior Management focused on a two-step process: a) articulation of the key functions comprising the campus *core* information technology infrastructure, systems, services and applications; and b) initiation of a collegial, participatory and negotiated campus-wide planning process identified as *Compact Planning* ([www.eits.uga.edu/cio](http://www.eits.uga.edu/cio)) involving clients, partners, and IT professionals both within *EITS* and throughout the institution and University of Georgia system. The *core functions* identified through a systematic and collaborative assessment of campus needs, expectations and requirements include:

- Strategic Planning, Governance, Policy and Advisement
- Business Operations and Administrative Functions
- Infrastructure, Architecture and Related Support
- Instructional Technology
- Research Computing
- User and Client Support
- Security for Information Technology Systems and Data
- Outreach and Partnerships

Engaging the campus community in a discussion regarding the status, requirements, and level of support expected for the **core** functions was the primary objective of the new Chief Information Officer during her first seven months on campus. In addition, the Office of the CIO and EITS Senior Management completed two rounds of the three-round campus *compact planning* process including one-on-one and group exploration meetings with key campus constituents (e.g., Finance and Budget; Registrar; Admissions; Housing; research community; Deans, Vice Presidents; Associate Provosts; Faculty) and key IT groups (e.g., UGANET, Information Technology Management Forum; IT Advisory Council; EITS Staff Advisory Board; Office of Information & Instruction/OIIT—Board of Regents). Over 100 meetings were completed since June 2005 with estimated 40 key initiatives and accompanying strategies collectively identified. The *UGA 5-Year plan* reflects six major goals in support of the three University mission-critical goals and major foci from the *Compact Planning Process*; the *EITS Compact Plan* will further identify initiatives, strategies, performance metrics, milestones and costs in support of the six major areas for both 2005-2006 and for the longer term .

### **EITS/UGA INFORMATION TECHNOLOGY GOALS**

In support of the University’s three strategic goals of *Building the New Learning Environment*, *Research Investment*, and *Competing in a Global Economy*, and the goal to be ranked among the top fifteen public universities in America by 2010, the Office of the Chief Information Officer and Enterprise Information Technology Systems (EITS) respectfully submit the following 5-year planning goals.

**GOAL 1: Recognizing that UGA does not have a comprehensive security plan in place, the Chief Information Security Officer, in concert with EITS leadership, will develop, implement and manage a comprehensive IT security planning process including the implementation of *best practices* based on industry standards.**

**Strategies:**

- Address issue of *securing sensitive data* through comprehensive and systematic approach beginning with initial phase evaluating use and storage practices and procedures.
- Implement institution-wide policies and security procedures based on *best practices* recognizing need for balance between policies/process, technology and people (e.g., Acceptable Use; Electronic Mail Security Policy; Mgt of Passwords; Personnel/Mgt Security).
- Develop formalized plan for *classifying assets* in order to protect critical institutional computing resources (i.e., information and information resources) from accidental or intentional intrusion based on risks associated with storage and/or processing of data.
- Develop validated awareness, education and training strategy including formal course curriculum and other learning interventions designed to provide appropriate information to minimize risk.
- Develop policy and plans for *business continuance* and *disaster recovery* to minimize disruption of mission critical functions and allow recovery of operations quickly and successfully.

<b>Performance Measure</b>	<b>Milestones/Outcome</b>	<b>Est. Timeline</b>
Long term <i>Plan-of-Action</i>	Deliverables based on <i>Phased</i> approach	Phase 1:Dec ‘05
Implemented standards/policies	Submission/approval of policies by administration	Ongoing
Inventory/classification of UGA sensitive data use, storage	Develop/distribute <i>business surveys/IT Tech Inventory</i> documents	Dec ‘05
Increased campus awareness, training, educ program	Schedule <i>online tutorial//video</i> methods ; focus on general awareness, educ. and training; regulatory	Ongoing
<i>Plan-of-Action</i> for DRP plan-- <i>Boyd Data Center</i> and critical <b>core</b> campus systems	DRP <u>framework</u> for: scope, teams; location for <i>warm sites</i> ; <i>Boyd Data Cntr</i> plan; external contracts/agreements; test plans	Feb ‘06

**GOAL 2: Recognizing the need for *enterprise-wide* integration of University administrative data management systems, implement systematic and incremental assessment and planning processes to enable reliability, stability, and timely access to organizational data and information; facilitate ability to move to web-enabled business services.**

**Strategies:**

- Align *core* administrative data management resources with institution’s central business process/procedures (e.g., Student System; Financial Aid; Human Resources; Finance) through development and implementation of comprehensive project management model enabling quality assurance, quality control and documentation.
- Initiate *Business Assessment* process for quality assurance, information security, and regulatory compliance recognizing the many departments campus-wide are held accountable to federal, state, university and departmental regulatory compliance (e.g., SACS accreditation; State of Georgia Auditors).
- Identify issues, time lines, costs and implementation structure in support of comprehensive *UGA ID Management System* including mechanism for implementing an alternate identifier to the current use of Social Security number (SSN).
- Beginning with high level *Business Process Review (BPR)* of core University administrative data functions, develop phased approach for selection and implementation of a campus *enterprise* administrative data management system enabling future integrator technology for course management and portal applications.

<b>Performance Measure</b>	<b>Milestones/Outcome</b>	<b>Est. Timeline</b>
<i>Project Mgt/Quality Assurance</i> model	Implementation of <i>Project Mgt/Quality Assurance</i> model/staff realignment	Dec ‘05
Requirements identified for regulatory/ accreditation processes/data access	Interface with Faculty Affairs/SACs accred team and development of data access processes	Mar ‘06
Strategy/solution selected for addressing ID Mgt System/ SSN	Completion of <i>Bus Process Analysis</i> ; assessment, recommend, options by 3 <sup>rd</sup> party consultant; identification of solution	Feb ‘05
Bus Process Review of <i>core</i> admin processes (e.g., Stud; Finance; HR)	Completion of <i>Bus Process Review(s)</i> ; assessment of options for common platform/separate platforms by function	Mar ‘06

**GOAL 3: Develop the *UGA Next Generation Network* design and action plan recognizing the campus network, systems and services have become the *core* infrastructure for teaching, learning, research and outreach efforts of the University.**

**Strategies:**

- Develop network *design* and *action* plan for enhanced levels of connectivity and functionality based on *core* network and accompanying security requirements.
- Establish a centralized hosting facility providing services for campus department/unit servers that support sensitive and/or critical data.
- Upgrade current *Mainframe* platform due to decreased vendor support and limited processor capacity.

- Develop proposal for cost-recovery model supporting centralized network support for the cable plant and the core equipment to the building/facility wall jack.
- Establish combined *Network Operations Center (NOC) and Security Operations Center (SOC)* enabling critical monitoring of network equipment and core network security infrastructure (e.g., servers, campus network edge)
- Review capability of current telecommunications infrastructure and system to support *Voice over Internet Protocol (VoIP)* in addition to costs, staffing, migration time lines, etc.
- Complete evaluation of IP Video Conference network *quality of service (QOS)*,

Performance Measure	Milestones/Outcome	Est. Timeline
Cont. emphasis on centralized Hosting facility	Completion of expansion of <i>Boyd Data Cntr/</i>	Dec '06
Enhanced connectivity/functionality	Stage 1: installation of hardware/software	Dec '06
Centralized Network Support	Develop cost recovery model	Mar '06
NOC/SOC Network Monitoring	Develop/implementation of cost recovery model	June '06
Assessment of UGA VoIP/Pilot	Completion of pilot testing/School of Forestry	Feb '07
Expanded (IP) Video Conferencing	Access Video Conference. Network potential	Apr '06

#### **GOAL 4: Facilitating Connectivity and Functionality in support of Research Computing and High Performance Computing (HCP)**

##### **Strategies:**

- Engage the UGA research community in discussions regarding research needs and expectations for high performance computing (HPC), *core* infrastructure services and support; and general *central* computing services role.
- Develop and operationalize organizational structure through the Research Computing Center (RCC) for meeting computing requirements of UGA research community in addition to facilitating interface with state, region and national high speed infrastructure (e.g., Southern Light Rail; National Lambda Rail; SURA; USG).
- Increase high performance computing (HPC) capacity of the Research Computing Center (RCC) via new cluster acquisitions based on UGA and UGARF funding; research grants; and incorporation of existing research clusters into the RCC computing infrastructure thus leveraging capacity and total cost of ownership.
- Increase research computing storage capacity by expanding existing RCC network storage hardware and software in Windows or Unix/Linux environment.
- Implement RCC *off-site* data storage archival and retrieval service.

Performance Measure	Milestones/Outcome	Est. Timeline
RCC Compact Plan action/metrics	Develop/Implement Compact Plan	Feb '06
RCC Organ. Structure model	Define RCC organ. model/optimal processes	Jan '06
Sustainable funding model	Identification of funding sources; commitment to funding; Implementation of funding model	July '06
Increase RCC Storage Capacity	Develop expansion plan for network, applications re: storage capacity	June '06
RCC <i>offsite</i> data storage	Deploy hardware and process to enable storage of critical research data outside of Boyd Data Cnt	Mar '06

**GOAL 5: Increase customer service options and support (e.g., messaging and information delivery systems; technology-based instructional delivery systems; file and print services; *tiered* customer support options) recognizing user requirements by competitive 21<sup>st</sup> century higher education students, faculty and research community.**

**Strategies:**

- Improve cost-recovery operations model through development and implementation of:
  - *Team Service Model* providing multiple technicians per client focused on specific areas of expertise and assigning *Team Lead* positions;
  - standardization of client IT environments in order to streamline support and system administration; and
  - implementing ticketing system enabling clients to view outstanding request and priorities via web.
- Leverage *core* production services and *Life-cycle Management* through technology upgrades and relocation of current services (e.g., retirement of ARCHES cluster).
- Upgrade, enhance and secure *Directory Services* (e.g., creation of multiple instances of MyID tailored for specific environment or unit).
- Enhance current and/or provide new services (e.g., appointment scheduling system; upgrade of Calendar Server; campus department migrations to UGAMail; expanded wireless access)
- Partner with Student Administrative System re: full service campus *Portal* technology
- Implement *new generation* web server architecture via upgrade of hardware and software, campus web server. implementation of a two-tiered cluster architecture, and provision new web-related services on mainframe.

Performance Measure	Milestones/Outcome	Est. Timeline
Improve cost recovery support	Reduced costs; increased efficiency	'06
Life Cycle Mgt/Production Serv	Consistent delivery of services	'06
Enhance and secure e-Directory	Implementation of new uses for MyID	'06
Value-added service(s)	Upgrade functionality; provide migration services	'06
Phased, <i>full service</i> campus <i>portal</i> technology plan	Phase 1: increased student <i>portal</i> functionality (based on Student admin data system design)	'08

**GOAL 6: Establish university-wide leadership for UGA Information Technology by positioning role of Chief Information Officer as leader for University information technology enterprise planning in support of the teaching, research, and outreach mission of the institution.**

**Strategies:**

- Position role of CIO as representative of University regarding information technology issues, needs and/or planning with state, region, higher education (e.g., NASULGC; Southern Light Rail Board).
- Develop and facilitate implementation of comprehensive, fully funded *IT Financial and Business Model* for *core* infrastructure, networks and systems reflecting cost of maintenance, staffing, upgrades, lifecycle replacement, in addition to options for funding based on current higher education and/or peer institution business models.

- Develop an enterprise *IT Staffing Model* based on ‘shared responsibility’ approach and designed to leverage current campus staff expertise, knowledge, training, experience and provide *career ladder* opportunities and competitive compensation.
- Develop and implement standards and policies governing UGA IT architecture/infrastructure, networks, systems and applications.
- Establish unit responsible for assisting campus and Office of the CIO with decision-support, capacity planning, and *best practices* performance metrics and indicators.
- Increase and/or leverage efforts regarding campus site license purchases and agreements in support of the University’s software and hardware requirements (e.g., scientific software licensing, administration of research computing applications and operating system software).

<b>Performance Measure</b>	<b>Milestones/Outcome</b>	<b>Est. Timeline</b>
Representation by CIO to appropriate forums (state, nation)	Constituents receive consistent and authoritative information regarding UGA and Inform. Tech	Ongoing
Comprehensive IT business model designed/developed	Greater effectiveness in maintenance and enhancement of <i>core</i> infrastructure/networks/systems	Summer ‘07
Development of IT Staffing model	Retention of highly qualified staff increased	ongoing
UGA—IT standards/policies developed and implemented	Implementation of standards/policies; increased Security/cost savings	ongoing
Phased implementation of <i>Decision Support/Performance Mgt</i> unit	<i>Data driven</i> decisions; accountability; capacity planning approach; identification of IT metrics	Summer ‘06
Increased campus-wide license collective purchases	Cost savings and standardization of campus applications/ <i>core</i> software	ongoing