University of Florida's Strategic Plan for IT 2011-2013





The University of Florida's Strategic Plan for Information Technology

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To view the complete recommendations of the UFIT governance committees, or for an online version of this summary document or the UFIT governance foldover chart, visit http://it.ufl.edu/ciooffice/strategicplans.html.

UF UNIVERSITY of FLORIDA

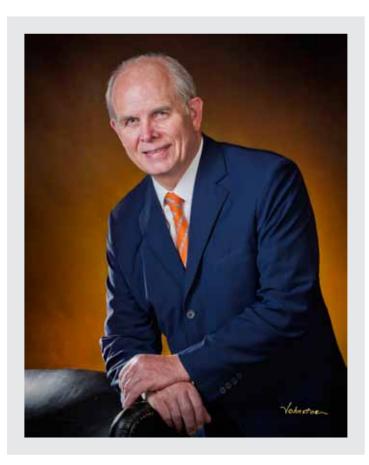
President's Message

The University of Florida is among the most diverse and comprehensive research universities in the nation – and all of our constituents share a common need for the most current, most purposeful information technology.

Our students and alumni require quick and mobile information delivery. Our researchers and partner institutions need computational capacity, electronic platforms for collaboration, and secure systems. From engineering to law to business, from admissions to alumni affairs, we rely on the latest technologies for e-learning, research, outreach, and discovery.

How can we improve UF students' experience and keep alumni connected? How do we strengthen research and learning, as well as clinical and public outreach? We must keep these concerns at the forefront as we remain attuned to a world of perpetually expanding technological possibilities and approaches.

Berne Machen



UF's Strategic Plan for Information Technology presents the university's priorities over the next eighteen months – while laying the foundation for acting strategically beyond that period. This plan represents a key first step in a continuous effort to align UF's investments in information technology with our goals as a top national public research institution.

I strongly endorse this plan as a thoughtful and comprehensive approach to advancing teaching, research, scholarship and service through the latest in information technology. I warmly invite you to peruse its contents. I am confident you will agree that the priorities and aspirations the plan sets forth will elevate and enhance UF and The Gator Nation.

J. Bernard Machen

President

Vice President & Chief Information Officer's Welcome

The Principles

This plan provides a roadmap we will use to guide information technology at the university. For this purpose we will adhere to these three principles:

Efficiency:

Resources and services provided by UFIT must be cost effective and provide good value.

Responsiveness:

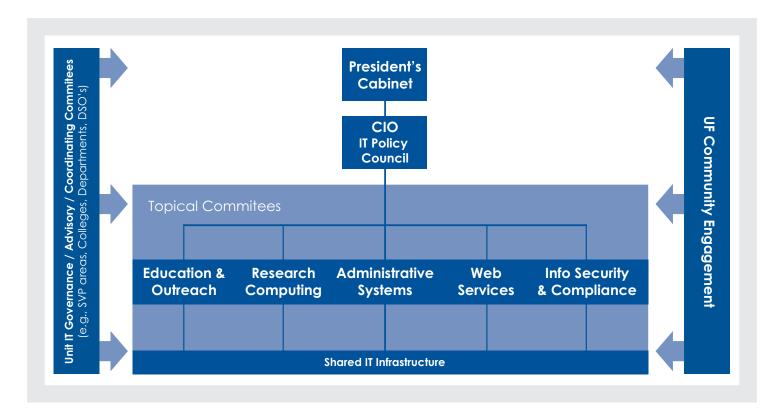
UFIT must be accountable to stakeholders and provide quality systems and services that address the stakeholders' needs.

Innovation:

UFIT must be innovative and support innovation to facilitate positive outcomes, improve quality of service, and competitiveness.

Governance for UFIT

The six governance committees, representing a broad array of constituents from across the university, are: Administrative Systems, Education and Outreach, Information Security and Compliance, Research Computing, Shared Infrastructure, and Web Services. The plan was further vetted through UF's IT Policy Council.

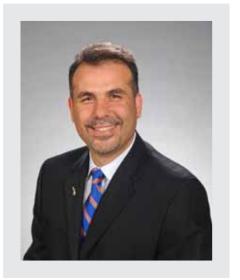


I would like to thank the more than 300 university citizens who contributed to this plan. To ensure representation from all university constituents, a systematic approach was taken that included interviews with academic and administrative leaders, retreats with IT leadership and management across the university, focus groups with faculty, staff and students, comparisons with peer institutions, and an analysis of trends in industry and education. Building out from the ideas and issues gleaned through the information gathering process, governance committees then authored action plans for each identified critical service area.

The findings and recommendations of the governance committees are presented on the following pages. In addition, more detailed information regarding the plan and the planning process is available at: http://it.ufl.edu/ciooffice/strategicplans.html

On behalf of UFIT, we are grateful for their expertise, perspective, and thoughtful deliberation. I would also like to extend an invitation to you to engage in a conversation with me, UFIT staff, and IT Governance to help keep us on track and on task. We welcome your comments and feedback on the University of Florida's strategic plan for IT.

Elias G. Eldayrie Vice President & Chief Information Officer eldayrie@ufl.edu



"Where is the value? It is never about the technology. It is about the value technology creates."

Elias G. Eldayrie



Advance the University of Florida to the Forefront of Teaching

Plan Focus

Provide effective IT services that improve the knowledge acquisition process

Increase the efficiency of knowledge acquisition activity while reducing costs

Establish an innovative continuous improvement model that encourages and enables new and improved modes of instruction

Increase opportunities for access to knowledge acquisition in both existing and new areas



Strategic Actions

Provide support for UF's course management system:

- Provide enhanced conversion services of learning materials into Sakai, UF's online learning management system
- Enhance current Sakai features
- Develop effective, "just in time" training modules in the use of Sakai

Provide support for teaching and technology:

- Expand instructional design services
- Enhance Web development and Web programming services
- Introduce testing mechanisms that meet current student evaluation needs
- Assess the effectiveness of teaching with technology

Develop and implement mobile technology services:

- Implement user-friendly Web interfaces and mobile applications for learning
- Create training modules in the use of mobile technology

Provide support for distance learning programs:

- Provide consulting on all aspects of distance learning
- Provide access to marketing and feasibility studies
- Deliver and advise on program design services and business plan development

Create an innovative environment that encourages evaluation and continuous improvement:

- Develop best practices and standards where appropriate
- Generate opportunities for faculty to leverage new developments in technology and related pedagogy

"Provide effective IT services that improve the knowledge acquisition process"



Position UF as a Leader in Research Computing and Innovation

Plan Focus

Improve opportunities for research and scholarship

Improve competitiveness in securing external funding

Enable radical collaboration between UFIT personnel, computational faculty, and the research community across UF and beyond

Increase accountability of UFIT staff, especially in support of research computing, to the faculty they support

Enable radical collaboration between

Strategic Actions, Continued

Develop and deploy fundamental infrastructure and services for research and scholarship:

- Expand support of high-end computational resources
- Enhance collaboration and messaging platforms
- Implement multi-domain authentication mechanisms
- Develop data storage architecture that supports data curation and reuse
- Support visualization tools, additional software licenses, and high performance networks

Collaborate with the Office of Research and the Division of Finance and Accounting to develop auditable mechanisms that help sustain and grow information resources for research:

- Enable flexible funding mechanisms to provide faculty with diverse needs and means to make use of resources
- Enable flexible staffing and management models that will allow faculty to have partial FTE access to the expertise available at the university
- Develop governance structures that align the activities and goals of researchers by focusing on solving problems and collaborating from the early planning stages with existing efforts that both support research and require research computing support
- Ensure accountability of IT staff that support research computing faculty

Strategic Actions

Collaborate with the Office of Research and the George A. Smathers Libraries to provide research faculty with information resources and services:

- Assist researchers and principal investigators by expanding their organizational knowledge of the university
- Provide access to timely information about UF investigators and research
- Promote awareness of national research resources
- Assist with meeting funding agency requirements that depend on IT resources
- Expand library technological resources in support of UF's research community





Develop a State-of-the-Art Information Security Environment

Plan Focus

Protect the ability of the university, its faculty, staff, and students to conduct education, research, and service and to provide patient care

Reduce risk to the institution, and its faculty, staff, and students by protecting the confidentiality, integrity, and availability of information assets

Educate faculty, staff, and students concerning information security policies, standards, and data protection practices through appropriate training

Establish enforceable policies in order to maximize compliance with laws, regulations, and generally accepted practices



Strategic Actions

Staff and operationalize the Information Security & Compliance office:

- Develop a data encryption strategy
- Develop an incident management program
- Develop a patch management program

Develop a risk management and compliance framework:

- Develop processes to assess risks
- Develop processes to manage and monitor risks
- Execute the risk management program

Develop an information security policy and standards framework:

- Create formal process for policy development, approval, implementation, compliance, and maintenance
- Develop a data classification framework

Develop an education and awareness program:

- Identify training priorities
- Develop training programs
- Assess awareness improvements

Develop a monitoring program:

- Develop and implement a process to inventory and classify information assets
- Develop a vulnerability management program
- Develop an intrusion detection and prevention program
- Conduct third party penetration testing

"Educate faculty, staff, and students concerning information security policies, standards, and data protection practices"



Create Leading-Edge Web and Mobile Services

Plan Focus

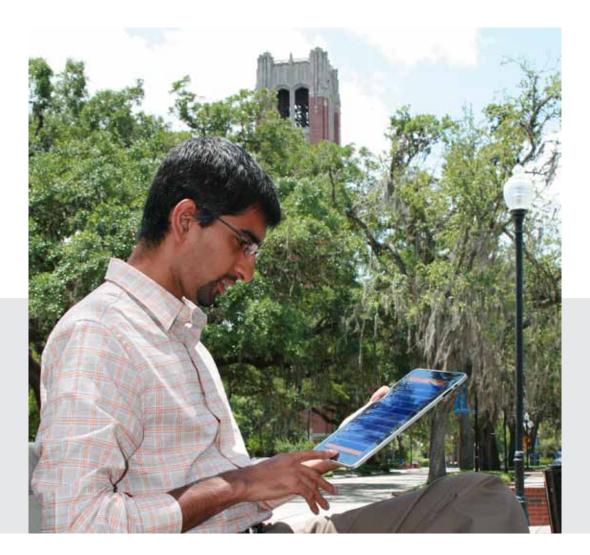
Increase university engagement of external and internal clients and friends

Promote an image of the university as being in the vanguard of academia

Facilitate access to university-related services and information

Promote a common, high quality, user experience across the UF Web domain

Ensure that usability, security, and legal requirements are met across UF Web resources



Strategic Actions

Redesign the UF Web presence (ufl.edu):

- Create a user-centric Web page that provides clear and effective navigation and searching
- Develop standards, recommended practices, and tools for Web content developers
- Establish enabling support infrastructure and streamline publishing process for Web content providers

Review and update existing Web-related policy, and propose policy in areas that require but may currently lack policy:

- Create a catalog of all existing Web-related policy at UF
- Formulate a plan and timeline to review and update existing policies
- Incorporate Web-related policy into the IT Policy web page
- Inform and educate campus on policy changes

Facilitate internal and external communication through multiple channels:

- Expand and formalize the use of social networking to reach external and internal clients
- Facilitate and encourage the university community and stakeholders to produce material and keep material up-to-date
- Promote services and knowledge of the university to internal, external, and global audiences

Develop Mobile Web and applications:

- Develop a mobile Web presence consistent with ufl.edu
- Develop standards, recommended practice and the tools for mobile Web and for app content developers
- Identify applications as significant, widely-used, or critical in relation to support requirements and response times

Provide centralized communication services:

- Institute campus-wide on-demand blog and wiki services for the UF community
- Facilitate rapid publishing without requiring users to possess detailed technical knowledge
- Provide consulting, support, and training services



Administrative Systems

Deploy Advanced Technologies to Improve Administrative Processes

Plan Focus

Improve decision making at all levels of the university

Enhance and streamline existing business processes

Provide intuitive and flexible access to content, applications and services

Enable new business opportunities



Strategic Actions

Develop a business intelligence (BI) strategy and implement the related systems and services:

- Develop the required middleware to integrate or federate data from multiple sources
- Introduce a set of BI tools that can be deployed and used coherently across the university
- Provide repositories for institutional data
- Create a data warehouse with secure access tools for use by the university community

Improve business processes and workflow management:

- Review inventory software and systems used across campus to identify unmet service needs
- Centralize and standardize hardware, storage, and software platforms for services that can be integrated, provided at a lower cost, or improved
- Replace current manual processes with more efficient online processes

Integrate budgeting into the campus Responsibility Center Management initiative:

- Assist colleges and units in the preparation and ongoing management of their annual budgets by upgrading reporting tools
- Provide more user-friendly, real-time data analyses and reports that better forecast revenues and expenditures

Improve student service systems leading to consolidation and integration:

- Create an authoritative, canonical data source for all student information
- Develop a student system that integrates all services currently provided by multiple student-related systems
- Integrate the student system with existing enterprise-wide computing systems

Improve the UFIT user experience:

- Apply usability principles to UFIT systems--consider the wide range of end-user technical knowledge and capabilities when developing new or enhancing existing university systems
- Make IT systems accessible through highly mobile devices

Maintenance:

 Perform maintenance to ensure IT systems and applications are kept current, supported, and operating effectively and efficiently



Maximize Efficiency of UF's Information Technology Infrastructure

Plan Focus

Provide shared IT infrastructure to meet the needs of central administrative systems, distributed IT departments, and end-users

Consolidate and standardize IT infrastructure to reduce costs through economies of scale

Replace or retire IT infrastructure at regular lifecycles to assure reliability and performance

Expand and enhance IT infrastructure capacity in response to increasing user demand

Evaluate and implement new technologies in support of innovative applications



Strategic Actions

Improve the computing infrastructure used by enterprise systems:

- Add, upgrade, or retire servers and storage as needed
- Migrate PeopleSoft-based enterprise systems from DB2 to Oracle
- Migrate enterprise systems backups from tape libraries to disk appliances
- Evaluate the potential benefits and cost savings of outsourcing student email
- Install a dedicated new server and storage platform for the Hyperion budgeting system

Upgrade and improve the network infrastructure across the Core, LANs, Expand Notificat broadce

Improve the network and telecommunications infrastructure

 Build new network links between the Main and East campuses

campus-wide:

and WANs

- Complete the wall-plate network refresh with 40,000 new network ports installed
- Complete the telephone system conversion to VoIP with 8,000 new lines installed

- Expand Emergency Notification System broadcasts to all classrooms
- Expand campus wireless network density in classrooms and public spaces

and offices

- Install a distributed antenna system to improve mobile device access
- Explore new technologies to improve network security and capacity

Expand data center infrastructure facilities and capacity:

- Build a new data center off campus for disaster recovery of enterprise systems
- Build a dedicated room in the new data center for high-performance computing
- Re-deploy space liberated on campus for additional departmental server hosting

Standardize the computing infrastructure used to host departmental systems:

- Provide virtual servers to minimize energy consumption and reduce security risks
- Standardize vendors and products to assure agreedupon service levels
- Negotiate volume discounts and site licenses to reduce costs
- Evaluate related services such as virtual desktop infrastructure (VDI)

Change widely-used services from user chargeback to central funding:

- Stop charging for common central services now used throughout campus
- Offer subsidies for emerging central services by cutting the price in half for VM server hosting and TSM data backups

University of Florida

The purpose of the University of Florida shall be to create, conserve and deliver knowledge through high-level research, teaching, clinical, and service/extension programs.

Teaching

Research

Service

Information Technology's Vision

Provide modern and flexible Information Technology services that enable the university community

UF Information Technology's Focus Areas							
Education and Outreach	Research Computing	Information Security & Compliance	Web Services	Administrative Systems	Shared Infrastructure		
Improve the knowledge acquisition process in terms of comprehension, acquired skills, long-term retention and critical thinking. Increase the efficiency of knowledge acquisition while reducing costs. Establish an innovative continuous improvement model that encourages and enables new and improved modes of instruction. Increase opportunities for access to knowledge acquisition in existing and new areas.	Improve opportunities for research and scholarship. Improve competitiveness in securing external funding. Enable radical collaboration between UFIT personnel, computational faculty, and the research community across UF and beyond. Increase accountability of IT research computing staff.	Protect the ability of the university to conduct education, research, and service and to provide patient care. Protect the confidentiality, integrity, and availability of information assets. Educate faculty, students, and staff on security policies, standards, and data protection. Establish enforceable policies.	Increase university engagement of external and internal clients and friends. Promote an image of the university as being on the vanguard of academia. Facilitate access to university-related services and information. Promote a common, high- quality, user experience across the UF Web domain. Ensure that usability, security, and legal requirements are met across UF Web resources.	Improve decision making at all levels of the university. Enhance and streamline existing business processes. Provide intuitive and flexible access to content, applications and services. Enable new business opportunities.	Meet the needs of central administrative systems, distributed IT departments, and end-users. Consolidate and standardize IT infrastructure to reduce costs. Replace or retire IT infrastructure at regular life cycles to assure reliability and performance. Expand and enhance IT infrastructure capacity to meet increasing user demand Evaluate and implement new technologies in support of innovative applications.		
Support UF's course management system. Support services for instructional design, web development, evaluation, and assessment of teaching with technology. Develop and implement mobile technology services. Support business plan development for distance learning programs. Create an environment that supports good practice and standards, and leverages technology and pedagogy.	Develop and deploy fundamental infrastructure and services for research and scholarship. Collaborate with UF service providers to make available faculty access to information resources and services. Collaborate with UF service providers to develop auditable mechanisms that sustain and grow research information resources.	Staff and operationalize the Information & Compliance Security Office. Develop a risk management and compliance framework. Develop an information security policy and standards framework. Develop an education and awareness program. Develop a monitoring program.	Redesign the UF Webpage (including portal, Web, social networking, and mobile technologies). Develop policy, usability standards, minimum requirements, recommended practice, and tools for Web, social networks, and mobile applications. Deploy a Web content management system and related services.	Enhance administrative services and support more efficient processes and decision-support for faculty, students, and staff. Enhance processes and communication related to incident response and change management. Improve the robustness and reliability of the administrative systems. Develop a mobile app/Web service that addresses student and other self-service needs.	Improve the computing infrastructure used by enterprise systems. Improve the network and telecommunications infrastructure campus-wide. Expand data center infrastructure facilities and capacity. Standardize the computing infrastructure used to host departmental systems. Change widely-used services from user chargeback to central funding.		

Long-Term Strategic Action Planning

Supporting UF's Mission: Teaching, Research, Scholarship, Patient Care, Extension, and Service



"UFIT: innovation, responsiveness, and efficiency."

Elias G. Eldayrie

During the past year faculty, students, and staff have given generously of their time to bring this plan to fruition. We look forward to next year, and the years ahead, as we maintain and enhance the IT services needed to support the institutional mission and values of the university. This plan is a dynamic plan and will evolve to meet the changing needs and priorities of UF.

We strive each day to find new, innovative ways to provide the needed technology infrastructure and services. As we have progressed in developing this strategic plan, some immediate goals were accomplished. Examples of some of the achievements by UFIT during the 2010-11 academic year are listed below.

Achievements

Improved the security of UF's computing environment

- Unified and strengthened the information security offices on campus
- Introduced service that maintains current software on all campus computers
- Initiated procedures to block malicious network traffic

Enabled the University of Florida to realize its teaching potential online

- Created the infrastructure (Sakai) to meet UF's eLearning platform needs
- Converted in excess of 3000 courses from WebCT to Sakai
- Provided concurrent eLearning platform usage to more than 48,000 students and 1,700 faculty

Demonstrated the potential of high--quality instruction delivery enabled by UFIT

- Developed and maintained 38 online courses using instructional 'best design' practices and pedagogy
- Taught nearly 12,000 students in these courses, with demonstrated improvements in quality of learning
- Reduced cost of instruction by as much as 64% per course

Expanded and supported physical and virtual learning spaces

- Equipped 250 classrooms with technology and upgraded lecture capture capabilities
- Updated computer lab workspace and services for more than 35,000 students
- Conducted video conferencing sessions for over 12,000 participants

Enhanced infrastructure to increase workforce performance levels

- Designed and deployed new servers, storage, and databases in support of major universitywide systems
- Increased UF Data
 Warehouse functionality
 by upgrading the
 related toolsets
- Added 8,000 wall-plate ports and 2,000 VoIP telephone lines

Enabled students with the skills to improve learning and become lifelong learners

- Provided 36,500 tutoring sessions for 7,000 students
- Logged more than 400,000 visits to UFIT web-based tutorials
- Utilized social networking to distribute over 500 video tutorials, viewed more than 50,000 times
- Instructed over 400
 Teaching Assistants (TAs) in best teaching practices

Increased faculty, students, and staff productivity by providing IT tools and support

- Processed over 117,000 help desk requests
- Managed the licenses for over 4,300 software packages
- Created interactive Graduate Electronic Referral System for e-submission and delivery of letters of recommendation for graduate applicants

Reduced IT costs to UF

- Negotiated site licenses and volume discounts through vendor partnerships, resulting in over \$1M in savings
- Consolidated and reorganized UFIT core units to increase efficiency
- Provided server co-location facilities, reducing energy costs and the university's carbon footprint
- Upgraded the myUFL Portal and Financials modules, decreasing customizations and reducing maintenance costs

Improved efficiencies for faculty/staff

- Moved to an online content management system for the undergraduate course catalog that provides inherent tracking/ versioning components for contributors
- Enhanced efficiency of identifying, processing, and admitting graduate students to the university



UFIT Governance Committee Members

Education and Outreach Advisory Committee

W. Andrew McCollough, Chair (Provost's Office)

Members

Catherine Baker

(Student Government Representative)

Jean Ballantyne (Nursing)

Don Chaney (Health and Human Performance)

Will Chaney (Library Representative)

Tom Dana (Education)

Selcuk Erenguc (Business Administration)

Joseph Fantone (Medicine)

Paul Gibbs (Veterinary Medicine)

Robyn Gleason (Faculty Senate Representative)

James Haddix (Dentistry)

Stephanie Hanson (Public Health and

Health Professions)

Spiro Kiousis (Journalism and Communications)

Mark Law (Engineering)

Pedro Malavet (Law)

Sven Normann (Pharmacy)

Thomas Obreza (Institute of Food and Agricultural

Sciences - Extension)

David Richardson (Liberal Arts and Sciences)

Edward Schaefer (Fine Arts)

William Tilson (Design, Construction and Planning)

Allen Wysocki (Agricultural and Life Sciences)

Area Expert Members (ex-officio)

Ken Nanni (Office of the Associate Provost for Teaching and Technology)

Fedro Zazueta (Academic Technology)

Research Computing Advisory Committee

Paul Avery, Chair (Physics)

Erik Deumens, Vice Chair (High Performance Computing)

Members

Mike Conlon (Clinical and Translational Science Institute)

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Information Security & Compliance Advisory Committee

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Kim Czaplewski (Employee Relations)

Renato Figueiredo (Electrical &

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Jack Sabin (Department of Physics)

David Wilkens (Shands HealthCare)

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Web Services Advisory Committee

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Members

Anne Allen (Academic Technology)

Debra Amirin (Academic & Professional Assembly)

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Margaret Fields (Education & General IT)

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Mindy McAdams (College of Journalism)

Daniel McCoy (College of Education)

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Area Expert Member (ex-officio)

Fedro Zazueta (Academic Technology)



UFIT Governance Committee Members, Continued

Administrative Systems Advisory Committee

Zina L. Evans, Chair (Provost's Office)

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Jim Ferrer (Office of the Chief Financial Officer)

Jodi Gentry (Human Resource Services)

Kenneth Gerhardt (Graduate School)

Stuart Hoskins (Finance and Accounting)

Kimberly Browne (Institute of Food and Agricultural Sciences)

Jeanna Mastrodicasa (Division of Student Affairs)

Bob Miller (Division of Business Affairs)

Kim Pace (Academic Affairs)

M. Peter Pevonka (Office of Research and Grants)

David Yergey

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Shared Infrastructure Advisory Committee

Tim Fitzpatrick, Chair (Computing & Networking Services)

Members

Al Amarin (Shands / Health Science Center)

Charles Benjamin (Housing)

Benjamin Brasch

(Student Government Representative)

Dan Cromer (Institute of Food &

Agricultural Sciences)

Julie Frey (College of Design, Construction & Planning)

Kris Kirmse (Education & General IT)

Shawn Lander (Engineering)

Scot Matusz (College of Liberal Arts & Sciences)

Prabhat Mishra (Faculty Senate Representative)

Eric Olson (Business)

IT Policy Council

Elias Eldayrie, VP & CIO

Officers

Kari Cassel (UF Health Science Center,

UF & Shands HealthCare)

Dr. Cammy Abernathy (College of Engineering)

Dr. Paul Avery (College of Engineering)

Dr. Zina Evans (Office of the Provost)

Tim Fitzpatrick (Computing &

Networking Services)

Andy Fletcher (University Relations)

Dr. Andy McCollough (Office of the Provost)

Dr. Jack Mecholsky (Faculty Senate Member)

Al Wysocki (IFAS)

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(Student Government Association)

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