

# Supporting the University of Florida UFIT Contributions

May 2012





# Contributions:

University of Florida Information Technology

May 2012

## What's Inside

|  |    |
|--|----|
| UFIT Governance Overview   |    |
| Vice President & Chief Information Officer's Welcome   | 2  |
| Education and Outreach: <b>Advancing the University of Florida to the Forefront of Teaching</b>          | 4  |
| Research Computing: <b>Positioning UF as a Leader in Research Computing and Innovation</b>               | 6  |
| Information Security & Compliance: <b>Developing a State-of-the-Art Information Security Environment</b> | 8  |
| Web Services: <b>Creating Leading-Edge Web and Mobile Services</b>                                       | 10 |
| Administrative Systems: <b>Deploying Advanced Technologies to Improve Administrative Processes</b>       | 12 |
| Shared Infrastructure: <b>Maximizing Efficiency of UF's Information Technology Infrastructure</b>        | 14 |
| UFIT: <b>A Strategic Partner to Achieving UF's Mission</b>   | 16 |

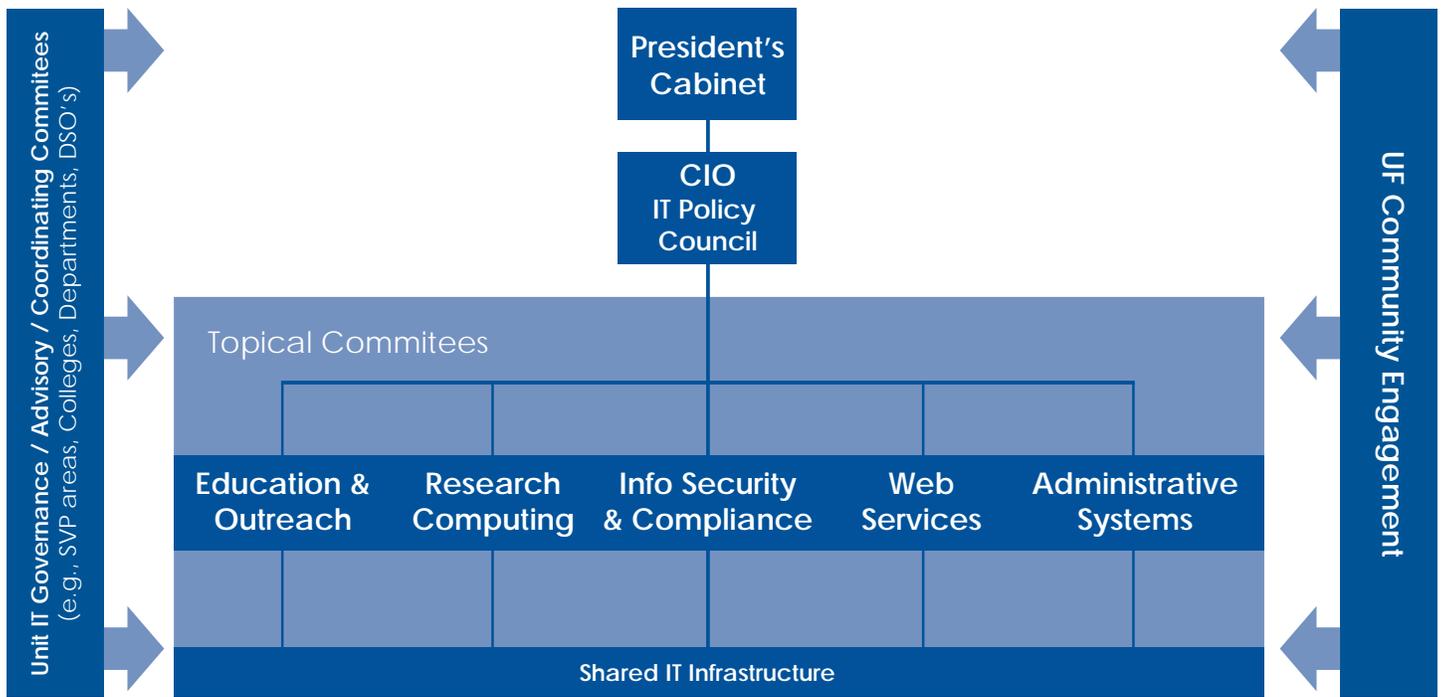


To view *Supporting the University of Florida: UFIT Contributions* online, visit:  
[www.it.ufl.edu/contributions](http://www.it.ufl.edu/contributions).

The *University of Florida: UFIT Contributions* is a companion progress report to the *University of Florida's Strategic Plan for IT*. To view the strategic plan online, as well as the recommendations of the UFIT governance committees visit: [www.it.ufl.edu/ciooffice/strategicplans.html](http://www.it.ufl.edu/ciooffice/strategicplans.html).

# University of Florida Information Technology:

## Governance Overview



## Vice President & Chief Information Officer

This is an enormously satisfying publication to put together. Selecting projects to feature from our contributions over this past year and re-reading some of the wonderful comments received reminds us how dynamic UF's Information Technology community is. And still... we look for ways to do more.

Each day we ask: can we create partnerships and focus technology resources to better support UF's strategic goals and direction? Each day we work to meet the needs articulated by our six governance areas. And each day members of campus share ideas for improving or creating new services.

When evaluating new ideas for projects or services, our guide is UF's strategic plan, *From Achievement to Recognition*. The goals in the plan, and President Machen's strategic directions outlined last December, provide our path to determining how UFIT can best serve the university.

Anticipating the future and providing the services that will enable UF to be a top-tier institution is a challenge for us all. What else can we do to advance teaching, research, and service? Some of the answers to that question are presented in this report. What are other ways UFIT can support the university's mission? Please share your ideas with me.

These are very exciting and busy times for UFIT, and I wouldn't want it any other way.



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**

# Advancing the University of Florida to the Forefront of Teaching:

Increased services to faculty for development of high-quality and educationally rigorous online courses.

## Strategic Directions Addressed:

- Grow the university
- Operational excellence
- Reduce risk

### IT Strategic Goals Addressed

- Provide support for teaching and technology
- Provide support for distance learning programs
- Create an innovative environment that encourages evaluation and continuous improvement

### Actions Taken

- Worked with the Provost's Office to create teach.ufl.edu
- Increased efficiencies and enhanced online teaching by developing focused training for faculty
- Collaborated with the Provost's Office to select and develop online courses for an institutional-wide approach

### Outcomes Achieved

- Demonstrated that online learning can generate a yearly return on investment of 500%
- Delivered higher quality online and hybrid courses
- Increased UFIT's capacity for course production by 400%



## Supporting Growth and Development of UF's Faculty

TRAINING EVENTS  
ATTENDANCE



2,666+

ONLINE TUTORIALS  
WATCHED



33,470

Online and face-to-face training programs for faculty on enabling technologies used to enrich teaching and learning.



"Working with the [UFIT] instructional designers, I've learned about pedagogy and how students learn, as well as the technology."

**Joseph C. Hartman, Ph.D.**  
Chair, Industrial & Systems Engineering

## Positioning UF as a Leader in Research Computing & Innovation:

Provided increased services for faculty to leverage computing resources, enhancing teaching, research, and competitiveness in acquiring external funding.

### Strategic Directions Addressed:

- ✓ Grow the university
- ✓ Operational excellence
- ✓ Reduce risk

### IT Strategic Goals Addressed

- Improve opportunities for research and scholarship
- Improve competitiveness in securing external funding
- Develop and deploy fundamental infrastructure and services for research and scholarship
- Foster stronger collaboration among the research community

### Actions Taken

- Enhanced consulting and training opportunities for research faculty
- Created a Web-based framework for biological computing
- Conducted extensive outreach activities at UF and throughout the state

### Outcomes Achieved

- Provided a reliable environment for complex computations and storage
- Increased awareness and knowledge on using advanced research computing resources
- Strengthened local, state, and national relationships amongst faculty



### Consolidating Resources to Improve Efficiency and Capacity



The Research Computing Matching Program pooled \$642k, thereby creating synergies and improving research infrastructure.



"I just submitted a \$12.5 million grant to the NIH in support of a metabolomics center at UF. The UF Research Computing group was fabulous in helping us with the writing, the resources, and the budget. We really owe them a lot of gratitude for this."

**Arthur S. Edison, Ph.D.**  
Biochemistry and Molecular Biology

# Developing a State-of-the-Art Information Security Environment:

Reduced the university's security exposure by deploying a comprehensive communications and awareness strategy.

## Strategic Directions Addressed:

- Grow the university
- Operational excellence
- Reduce risk

### IT Strategic Goals Addressed

- Develop a risk management and compliance framework
- Establish an education and awareness program
- Develop an information security policy and standards framework

### Actions Taken

- Developed a data encryption program to reduce impact of loss or theft of Mobile and storage devices
- Deployed new monitoring sensors in the Academic Health Center's network to identify threats and malicious Web traffic
- Implemented a patch management program to address incidents detected by UFIT monitoring processes

### Outcomes Achieved

- Led efforts to revise and update the university's Acceptable Use Policy and establish the Mobile Computing and Storage Devices Policy
- Increased awareness of UF computing policies and the importance of data security through numerous events, workshops, and news outlets
- Created a process for university-wide security policy development, approval, implementation, compliance, and maintenance



## Reducing the Risk of Data and Security Incidents at UF

ENCRYPTED  
USBs



1,700+

EVENT  
ATTENDANCE



2,500+

- Distributed over 1,700 encrypted flash drives (USBs) for unencrypted flash drives at faculty and staff exchange events, reducing a common source of security risk at UF.
- Increased awareness of information/data security issues on campus by hosting workshops, teaching security awareness courses, and sponsoring an IT security awareness day.



"UFIT staff designed a database for our new security screening program, ultimately screening over 9,000 employees throughout the 2011 football season. What happens behind the scenes is crucial in security planning, and we certainly could not have accomplished our objectives without their assistance."

**Lt. William Gainey**  
Special Events Coordinator  
University of Florida Police Department

# Creating Leading-Edge Web & Mobile Services:

Delivered Web and Mobile platforms for an enhanced virtual experience of the University of Florida.

## Strategic Directions Addressed:

- Grow the university
- Operational excellence
- Reduce risk

### IT Strategic Goals Addressed

- Create a Web presence for UF consistent with a top-tier university
- Facilitate internal and external communication through multiple channels
- Develop Mobile and Web applications

### Actions

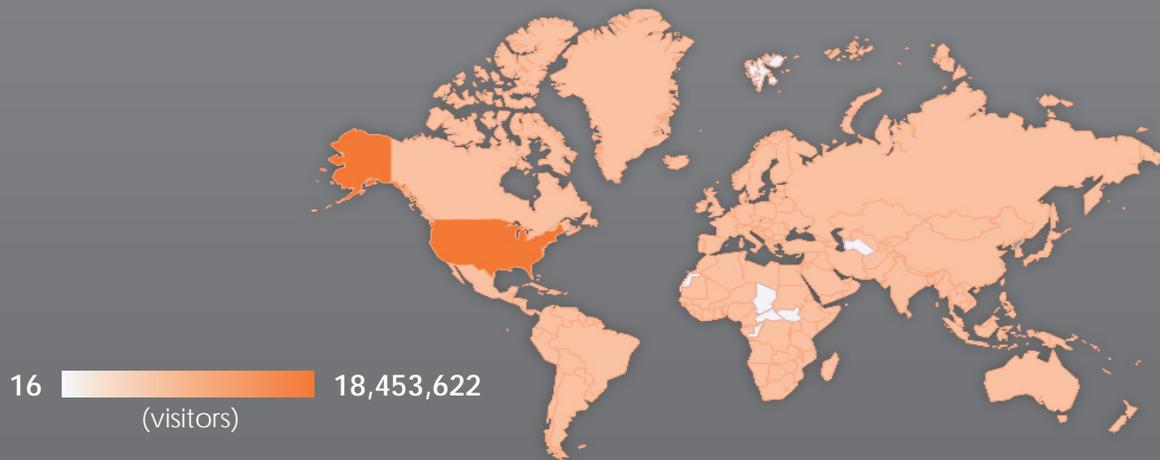
- Deployed an updated 'new look' design for the UF homepage
- Incorporated stakeholder feedback into the UF Web presence reimplementation
- Introduced UF's Mobile Web presence: m.ufl.edu
- Developed UFIT News (a campus-wide IT news channel) and launched companion social media outlets

### Outcomes

- Modernized UF's Web presence, enhancing the university's primary connection point with the world
- Provided access to services via Mobile devices
- Enabled a more unified Web presence across UF by providing tools, resources, and training



## UF's Homepage: The Gator Nation's Online "Front Door"



- Visitors to UF's Website in 2011: 19,528,014
- The number of pages viewed: 40,246,100
- Countries represented by Website visits: over 220



"Our generation spends most of our time connected through technology. UF's Web presence is essential, not only for future Gators, but current students as well. We need to have the most up-to-date, relevant, and engaging Web content for our students and our community."

**Christina Bonarrigo**  
 Junior – Political Science Major  
 Budget and Appropriations Chairwoman  
 University of Florida Student Government

# Deploying Advanced Technologies to Improve Administrative Processes:

Improved UF systems to streamline processes, facilitate decision-making, and enhance the user experience.

## Strategic Directions Addressed:

- Grow the university
- Operational excellence
- Reduce risk

### IT Strategic Goals Addressed

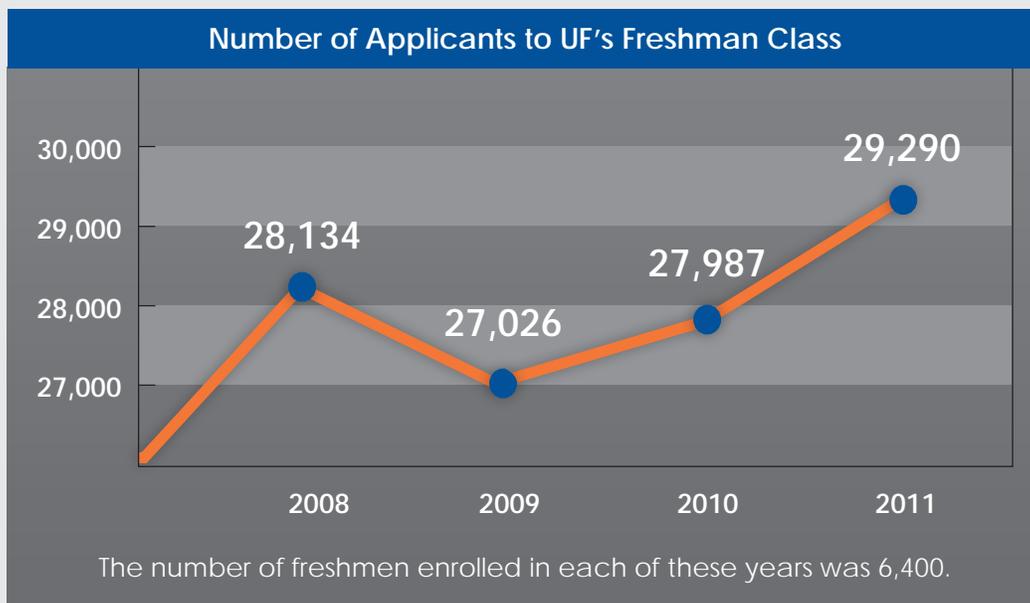
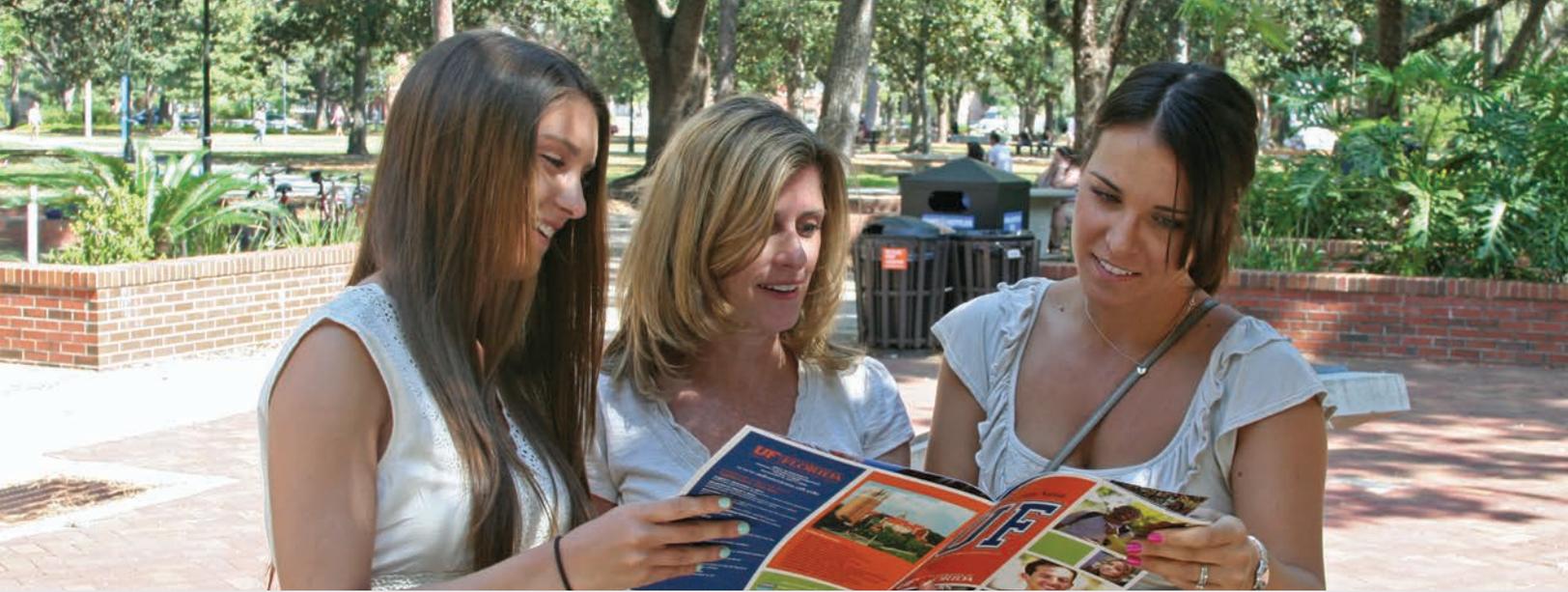
- Improve decision-making at all levels of the university
- Enhance and streamline existing business processes
- Provide intuitive and flexible access to content, applications, and services
- Enable new business opportunities

### Actions Taken

- Implemented the online faculty assignment report, eliminating a cumbersome, paper-based process
- Enhanced the online tenure and promotion (T&P) system by integrating data from several sources
- Perfected a maintenance program that ensures a robust system performance while reducing costs

### Outcomes Achieved

- Saved faculty and staff time by creating a coherent, single-data repository for T&P review
- Initiated new effort certification process to facilitate compliance with state reporting regulations
- Enhanced and streamlined the online freshman admissions and application review process



“Over the last decade the university has seen a 30% increase in freshman applications. The Innovation Academy spring-summer enrollment model allows UF to increase access, maximize capacity during spring and summer, and maximize resources. UFIT was very responsive in modifying the student administrative systems and meeting our tight schedule for the fall application process.”

**Zina Evans, Ph.D.**  
Vice President for Enrollment Management  
and Associate Provost

# Maximizing Efficiency of UF's Information Technology Infrastructure:

Expanded the reach of the campus Wi-Fi network to meet the rapidly expanding use of Mobile devices at UF.

## Strategic Directions Addressed:

- ✓ Grow the university
- ✓ Operational excellence
- ✓ Reduce risk

### IT Strategic Goals Addressed

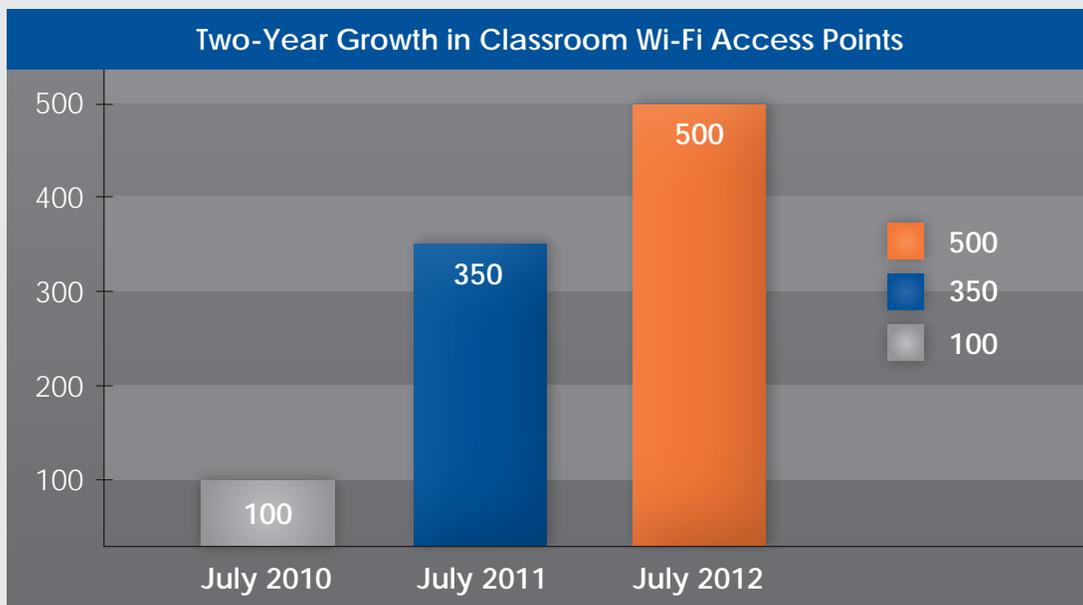
- Improve the network and telecommunications infrastructure campus-wide
- Create a common user experience for accessing IT resources anywhere on campus
- Provide support for Mobile technology services

### Actions Taken

- Added over 400 wireless access points (WAPs) in classrooms, and more than 1000 WAPs campus-wide
- Improved mobile access to online services and resources by upgrading Wi-Fi technology, monitoring, and management
- Increased the number of users who can simultaneously log on to UF's Wi-Fi to more than 10,000

### Outcomes Achieved

- Enabled the use of online resources for teaching, collaboration, and assessment
- Improved the user experience of online resources by allowing users to stay connected to UF's Wi-Fi while moving around campus
- Delivered a desktop-like network experience for Mobile devices by improving Wi-Fi capabilities



“Thank you so much for enhancing the Wi-Fi capacity in MCCA G186. Yesterday, I administered an online exam through Sakai in room G186 without any difficulty. And I was able to administer the same online exam to students at Ft. Pierce. Again I thank you for your help.”

**Joseph Larkin III, Ph.D.**  
Microbiology and Cell Science

# University of Florida Information Technology:

A Strategic Partner to Achieving UF's Mission

## Strategic Directions:

- Grow the university
- Operational excellence
- Reduce risk

## Grow the University

- Implemented new cloud-based services benefitting faculty, students, and staff
- Replaced hundreds of physical servers with virtual servers—for the same price the university's storage capacity significantly increases
- Increased UFIT's online course production, instructional design assistance, and training availability for the faculty at no cost to the individual college or unit
- Shifted major IT services to the RCM baseline funding model, reducing costs and allowing for reinvestment in new services

## Videoconferencing and UF Sustainability

TRIPS  
AVERTED



29,105

DRIVING  
MILES SAVED



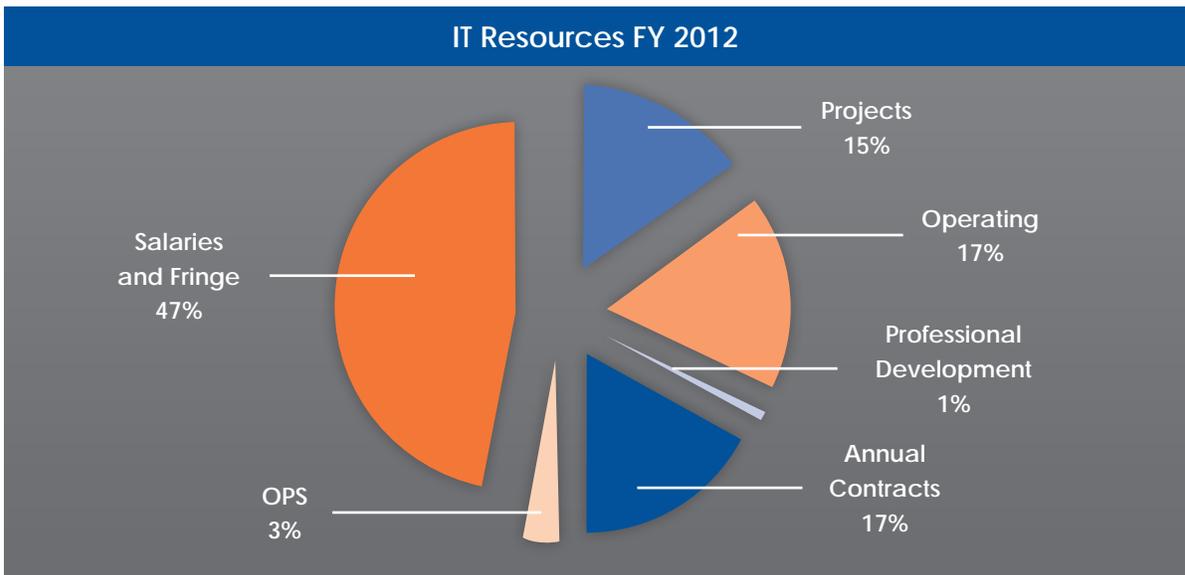
9,572,318

CO2 REDUCTION  
(IN METRIC TONS)



4,157

Videoconferencing services support UF's commitment to promote sustainability. Services are available to UF stakeholders located in all 67 Florida counties providing a platform that reduces travel, improves communication, and encourages collaboration.



### Operational Excellence

- Renegotiated numerous technology site licenses and software contracts, saving UF over \$1 million a year
- Provided infrastructure and support enabling Freshman Admission Decision Day online notification: over 24,000 applicants logged on to check acceptance in a single evening, with no complaints or service issues reported
- Implemented the online faculty assignment report (FAR), replacing a paper-based process, integrating steps so faculty and staff can review and evaluate planned work versus actual work
- Increased central server hosting by 500% (from 250 to over 1500 in two years), eliminating the need for extra power and cooling in buildings all over campus, especially at nights and on weekends

### Reduce Risk

- Delivered significant investigative and forensic support to 38 investigations
- Improved UF's data security by moving sensitive data from makeshift machine rooms into hardened central data centers
- Expanded the university's Emergency Notification System to allow broadcast to 20,000 VoIP phones
- Deployed program to verify identities of users accessing UF computing resources

**Assistance to Students, Faculty, and Staff**

GRADES PROCESSED

472,496

HELP DESK INTERACTIONS

130,424

COURSE REGISTRATIONS

191,000+

