

## **Recommendations for the Information Technology Master Plan**

### **Information Technology Management Forum Virtual Engagement Committee**

**Submitted: July 14, 2010**

This Virtual Engagement Report was developed to integrate with the Information Technology (IT) Master Plan that will support the University of Georgia Strategic Plan and identifies services that will help the University to accomplish its goals. Virtual engagement services are critical for the successful implementation of the Strategic Plan and are also an important part of the IT Master Plan.

The Chief Information Officer charged the Information Technology Management Forum (ITMF) Virtual Engagement Committee in May 2010 with the following:

- Define specific areas of virtual engagement in use at the University
- Identify the products and services currently in use at the University and describe how they are used, managed, and supported
- Identify areas of need for centralized infrastructure and support, and provide any recommendations for solutions and/or services

The committee identified seven key areas of virtual engagement:

1. A videoconference (or video-tele-conference) is a set of interactive telecommunication technologies which allow two or more locations to simultaneously interact via two-way video and audio transmissions. Individuals or groups participate from specially-equipped rooms.
2. Web-conferencing technologies enable users to conduct live meetings, training, technical support or presentations via the Internet. In a web-conference, each participant sits at his or her own computer and is connected to other participants via the Internet. Web-conferencing connections may be one-to-many, one-to-one or many-to-many.
3. Teleconferencing technologies allow multiple participants to have audio only, full duplex conversations. Technologies may use telephone systems (POTS or VOIP) or wireless/mobile systems.
4. Instant messaging services provide nearly instantaneous text messages to users via computer, cell phone or other handheld device. The message may be generated by a human or a computer system, e.g. to notify users an event such as an outage has occurred. Messages may be simultaneously broadcast to multiple users.
5. Learning Management Systems are software applications for the administration, documentation, tracking, and reporting of training programs, classroom and online events, e-learning programs, and training content.
6. A lecture capture system is any computer appliance and its related software that is dedicated to recording and distributing instructor presentations in a classroom

environment. While many of the technologies included in this report contain the ability to capture presentations, e.g. videoconferencing and web-conferencing systems, the primary purpose of those systems is not the capture and distribution of presentations.

7. Digital media hosting software/services consists of a computer appliance and software to store, catalog and deliver electronic media, such as photos, audio, video, and animation. The server delivers the electronic media to users via downloading, streaming (video on demand), or subscription (podcast) protocols.

After identifying and defining these seven key areas, the committee developed a brief survey designed to obtain an inventory of products and services used by the University community, as well as rough estimates for initial and annual costs and full-time employee statistics. The survey was advertised and sent out to members of ITMF, UGANet, and EdTech. Committee members also identified support staff and active users of the various virtual engagement technologies and contacted those individuals to encourage survey participation.

In addition to the survey, a follow-up interview was conducted with survey participants who provided contact information. The purpose of the interview was to more clearly identify the purpose and usage of these technologies and to identify any areas of need.

The following summarizes the committee's findings based on data from the survey, interviews, and supporting materials from other committees.

### **Videoconferencing**

The EITS Video Conferencing Committee currently lists 65 Tandberg and 14 Polycom videoconferencing units registered and in use on campus and at extended sites. Of the 46 survey respondents, 35 reported owning and using videoconferencing units. These units are used primarily for instruction or administrative purposes with occasional use for research and outreach purposes. Common uses include:

- Distance education classes
- Meetings
- Faculty/student collaborations (instructional and research-related)
- Guest speakers
- Interviews/placement opportunities
- Medical rounds reporting

Many of the interview participants expressed an interest in more centralized infrastructure and support for videoconferencing. Specifically mentioned was the need to allocate network and support resources, continuity and standardization, identifying cost-saving measures for University units, and better integration with the University's learning management systems.

Starting in June of 2008, EITS Strategic Projects facilitated committee meetings for users of videoconferencing from different departments across the University of Georgia. The Video

Conferencing Support Committee Report is attached, along with a cost report provided by the College of Pharmacy that outlines videoconferencing expenses for that unit since 2005.

### **Web-conferencing**

Of the 40 survey respondents, 25 reported owning and/or using web-conferencing products and services. The most common web-conferencing solutions include Skype, Microsoft Live Meeting, GoToMeeting, and centrally-supported Wimba Classroom. During the Spring 2010 semester, 1,514 Wimba Classroom spaces were accessed with more than 20,000 logins. One unit has invested in Tandberg Movi as a means to connect desktop users with videoconferencing systems. All of these solutions are used primarily for administrative, instructional, and some research communication and collaboration. Common uses include:

- Meetings (generally one-to-one or one-to-many)
- Interviews
- Vendor communication/webinars
- Guest speakers
- Research collaboration

Several of the interview participants expressed an interest in a campus-wide solution for web-conferencing that is specifically designed to handle on-the-fly meetings with non-UGA participants and provide better integration with the University's learning management systems. One possible solution may be Wimba Pronto.

Beginning in Fall 2010, faculty, staff, and students will have a new collaboration option in Wimba Pronto. Pronto is a communication tool that includes audio and videoconferencing, text chat with queuing, application sharing, and a shared whiteboard. Once installed, users can take advantage of many features commonly found in web-conferencing software without the learning curve and time needed to configure such tools.

### **Teleconferencing**

UGA has a teleconference bridge solution available for all users on campus. Soon the existing telephone system will be replaced. Additional teleconferencing options are designed into the new telephone system, which will provide users the ability to support a six party teleconference and provide staff more flexibility when using this technology.

Twenty-six survey respondents reported using the current bridging solution; nine respondents use other systems. Interviews reflected teleconferencing is primarily used for administrative communication but also for instruction and some research. Common uses include:

- Meetings
- Supplemental audio for distance education classes via web-conferencing

Based on feedback provided, the teleconferencing system should retain current functionality but provide greater end user flexibility and ease of use. Features such as call recording, caller blocking, and muting should be included.

### **Instant Messaging**

Survey participants reported use of a number of instant messaging services, most commonly MSN Live Messenger, Skype, and Google Chat. These services are primarily utilized for administrative, personal, and occasionally instructional use. Common uses include:

- Inter-office/departmental communication
- Monitored question & answer option for distance education classes
- Faculty online office hours
- IT assistance

In addition to the current uses, there is an expressed interest in utilizing the instant messaging features included in the new Live@UGA email system for desktop management and remote assistance.

### **Learning Management Systems**

eLearning Commons (eLC) is the centrally-supported campus learning management system, and is reported to be actively used by 67% of respondents. During the spring 2010 semester, 40,006 unique users logged in to 5,559 eLC sections, including 2,707 OASIS course sections and 2,852 non-OASIS sections. Other systems in use include Sakai (internally and externally hosted), Microsoft SharePoint (locally licensed/hosted), and Moodle (internally and externally hosted). Respondents indicated that these systems were generally used for instructional, administrative, and outreach purposes. Common uses include:

- Class materials (for face-to-face and distance education)
- Internal training
- Inter-office, campus, and external collaboration
- Outreach (specifically training for non-UGA users)
- Application and/or job reviews

As mentioned previously, several users expressed an interest in a solution for better video- and web- conferencing integration with the University's learning management systems.

The Learning Management Systems Executive Committee (LMS-Exec) includes representatives from across campus, and is just beginning a market study of current LMS options. LMS-Exec will identify the LMS needs for the University, review both proprietary and open-source options, implement pilot programs, and report findings to the University administration.

## **Lecture Capture and Digital Media hosting software/services**

Five survey respondents indicated they use lecture capture systems. Those interviewed indicated that lecture capture was primarily used for instructional and administrative purposes. Common uses include:

- Classroom instruction recordings
- Guest speaker recordings
- Training videos

Nineteen of the 33 survey respondents indicated active use of digital media hosting services. The most common solutions included the USG Podcasting Server, the UGA Streaming Server, and locally hosted Adobe Flash streaming servers and Windows Media servers. There are currently more than 3,500 files on the UGA section of the USG Podcasting Server, representing over 200 active accounts, and over 900 files on iTunes U. On the UGA Streaming Server, there are 268 users, who have uploaded 11,898 media files totaling 100GB of disk space. Survey participants indicated that streaming digital media hosting solutions are primarily utilized for instructional and outreach purposes. Common uses include:

- Class materials (including lectures, demonstrations, and supplemental materials)
- Training demonstrations and materials
- Promotional materials
- Public affairs events/guest speakers
- Archives

Several of the survey participants interviewed expressed a need for continued support and growth for lecture capture and digital media hosting services. Specifically mentioned was the need to centralize services and support to cut costs, provide adequate resources for capacity and archival purposes, and establish campus standards for publishing digital materials.

## **UGAMail and Collaboration Suite**

The EITS migration from locally administered email and calendar functions to a Windows Live system will likely affect the manner in which individuals at UGA interact with each other. Windows Live is the collective brand name for a set services and software products from Microsoft accessible from a browser or via applications installed on a user's PC. User's data (messages, appointments, contact lists, documents, photos and other files) stored on Microsoft Data Center servers is accessible from any computer or mobile device. Users share photos and files, collaborate on documents, or display photos and files with anyone on the Windows Live network (all UGA users).

The system provides mechanisms for organizing content in hierarchical folders, setting permissions for sharing, instant messaging and ad hoc web-conferencing.

Anecdotal evidence indicates that students are already using similar tools provided by Google. Their transition to Windows Live may be delayed because of the former's market penetration, but it is reasonable to assume that new users will take advantage of the features available on the latter.

### **Support and Management**

Support for virtual engagement technologies varies among units based on unit size, frequency of use, and available support staff. As is often the case in IT support, respondents indicated support personnel wear many hats and provide scheduling, troubleshooting and support, and repair and maintenance work as needed. Only one unit indicated they had three full-time employees dedicated to supporting videoconferencing equipment. In most cases, only a small percentage of employee time was dedicated to support virtual engagement technologies. Reliance upon or utilization of on-campus support staff for campus-wide or unit-specific technologies was not included as a part of this survey or the follow-up interviews. The committee recommends further examination of the staffing and management requirements for support of specific virtual engagement technologies.

### **Strategic Plan Alignment**

The University of Georgia 2020 Strategic Plan focuses on seven strategic directions: Building On Excellence in Undergraduate Education; Enhancing Graduate and Professional Programs; Investing in Proven and Emerging Areas of Research Excellence at UGA; Serving the Citizens of the State of Georgia and Beyond; Improving Faculty Recruitment, Retention, and Development; Improving and Maintaining Facilities and Infrastructure to Provide Excellence in Instruction, Research, and Service; and Improving Stewardship of Natural Resources and Advancing Campus Sustainability. Virtual engagement technologies and processes can facilitate achievement of several of the strategic priorities and benchmarks listed within these strategic directions. Examples follow.

Education / Instruction:

- “Offer an education that prepares graduates for life-long learning through collaborative learning, critical problem solving, and critical thinking.”
- “Offer increased access to the University of Georgia through extended campus educational programs and online education.”
- “Offer increased access to University of Georgia graduate education through extended campus educational programs and online education.”
- “Increase the number of degree programs offered and graduate student enrollment at the extended campuses.”
- “Provide infrastructure that allows for instruction in ‘global classrooms,’ viz. learning environments that link students and faculty in different countries synchronously.”

Today's learners and educators are looking for ways to enhance impact and to make more efficient use of their time. Traditional limitations such as physical facility capacity, distance, and time can be made less relevant. Virtual engagement technologies open the doors of the classroom to more students and enable collaborative learning.

#### Research:

- "Provide physical and technological infrastructure to conduct cutting-edge research."
- "Develop research programs with the Medical College of Georgia—University of Georgia Medical School partnership through translational research programs such as the Clinical Studies Center."
- "Build and promote international research partnerships with prestigious academic partners who reinforce and complement UGA's strengths."
- "Focus on interdisciplinary research such as environmental programs."

Virtual engagement technologies provide a rich communications platform that allows researchers to engage and collaborate more effectively across disciplines and across geographic barriers. These technologies not only facilitate collaboration but can also be an integral part of the research itself, e.g. distance diagnostics and distance medicine.

#### Partnerships and Outreach:

- "Position UGA at the hub of international networks of innovation and entrepreneurship in key fields."
- "Work with Georgia's business, industry, and government to create a knowledge hub in the Athens-Atlanta region."
- "As a public university, the University of Georgia has a responsibility to play an important role in linking Georgia's communities to the world."
- "Provide outreach programs that focus on the application and provision of institutional resources for community use with benefits to both campus and community."
- "Increase the number of partnerships with community, governments, K-12, and USG institutions in Georgia; increase private sector partnerships from 2010 levels."
- "Increase the number of international outreach programs that bring direct and measurable benefit to the state, students, and faculty from 2010 levels."
- "Increase the number of students participating in outreach activities in the state of Georgia (e.g., internships, service-learning, volunteering) from 2010 levels."
- "Increase collaborations with communities in Georgia (e.g., Archway projects)."

Virtual engagement technologies provide a means for communities and universities throughout the world to engage, work on problems of common interest, and disseminate knowledge. These technologies enable students to actively participate in the land grant university public service and outreach dynamic.

#### Faculty / Staff Recruitment and Retention:

- “Improve faculty and staff recruitment and retention through addressing quality of life issues.”
- “Recruit top-notch international faculty and scholars.”

Many factors contribute to the University’s ability to recruit and retain quality faculty and staff. Virtual engagement technologies provide existing faculty and staff greater individual flexibility and freedom while maintaining the capability to stay connected to students and colleagues. Sought-after faculty and staff recruits may be unable to immediately relocate yet want to begin a professional relationship with the University. Virtual engagement technologies may enable this type of transitional relationship and thus provide an attractive mechanism for transitioning from an existing employer to the University.

#### Environmental Impact:

- “First, the university campus should be an example to others in reducing its environmental footprint to the greatest extent possible. This includes efforts to significantly reduce energy and water use.”
- “Reduce university consumption of energy by 20 percent.”

Virtual engagement technologies enable the University to reduce travel costs and reduce energy consumption. (See CAES Wimba Spotlight case study)

The technologies referenced in this report enable the 24x7x365, anyplace, anywhere engagement channels that University students, educators, scientists, administrators, service providers, and constituent communities are demanding. These technologies woven together with traditional place-bound resources, infrastructure, and services provide a virtual engagement fabric that directly supports many of the priorities and benchmarks of the University of Georgia 2020 Strategic Plan.

#### **Concluding Remarks**

The University of Georgia campus offers a variety of undergraduate and graduate degree programs, a variety of certificate programs in a variety of fields, and non-credit programs for professional development across the state including four extended campus locations. These sites include the Griffin, Tifton, Terry College of Business Campus in Buckhead, and the newly located Gwinnett Campus in Lawrenceville. In addition, UGA has an extended presence in Cooperative Extension offices, Public Service and Outreach programs (e.g., ITOS, SBDC, Georgia Center, etc.) and the Study Abroad opportunities. Due to the widespread coverage area of the University of Georgia it is extremely important that virtual engagement technologies be used to enhance collaboration between distant teams and to provide business tools that drive productivity gains, reduce cost and optimize resources.

The University faculty, staff and students can be affected by many factors when working toward meeting its mission, including travel, weather conditions, security issues, etc. However, having reliable access to virtual engagement technologies can improve the ability not only to meet the University mission but to improve productivity, reduce cost and optimize resources. This is especially important in tight budget times.

Based on the feedback and data collected from the user and support community, the Virtual Engagement Committee recommends that a strategy be developed around the virtual engagement technologies detailed above as a part of the IT Master Plan. There are active committees that are meeting to help address some of these areas including the Video Conferencing Committee, Distance Education Committee, Podcasting Subcommittee of CAIT, and the Extended Sites Committee (report attached). It is important that the work of each of these committees be integrated into an overall virtual engagement technology model.

#### **Committee members**

- Chris Adcock, College of Agriculture & Environmental Sciences
- Sherry Clouser, Center for Teaching & Learning
- Mike Dennis, EITS
- Peter Norris, College of Education
- Beth Woods, Chair, College of Family & Consumer Sciences

## **Appendix A**

EITS Video Conferencing Support Committee Report (2008-09)



### **EITS Core Area: Strategic Projects**

Video Conferencing Support Committee 2008-2009 (VCSC)

#### **Summary:**

Starting in June of 2008, EITS Strategic Projects (SP) facilitated committee meetings for users of video conferencing (VC) from different departments across the University of Georgia and extended campuses. The following is a list of committee members:

**Chris Adcock, Poly Cleveland, and Bill Blum**, The College of Agricultural and Environmental Sciences OIT (CAES); **Krystal Pintar** and **Don Newman**, Center for Teaching and Learning (CTL); **Sara Jones, Brad Brown, and Russell Palmer**, College of Pharmacy; **Chris Baines, Tim Shields, Dustin Deadwyler, Keith Ledford, Marcus Henderson, George Veeder** (Chair), Enterprise Information Technology Services (EITS); **Ed Maioriello** and **Tyrone Kelly**; Board of Regents – Peachnet.

The vision of this committee was to set feasible and appropriate demands and support levels that will enhance and secure the needs for VC support to all departments of the University of Georgia and extended campuses. With that in mind, the committee produced short-term and long-term recommendations for supporting VC.

The committee developed workflows and best practices for different aspects of VC tiered support including:

- (Tier 1 support) Internal processes and best practices for VC issues should be directed to the individual department's IT staff, Video Conferencing Departmental Liaison (VCDL). See the VCDL responsibilities and check list (Attachment 1) and Video Conferencing Support chart (Attachment 2) for flow of support.
- (Tier 2 support) The EITS Helpdesk manages VC tickets by receiving a communication from a client and then they manually submit a Remedy ticket to Network Operations Center (NOC) when EITS' VC services are needed.
- (Tier 3 support) The NOC ensures QoS handoffs to Peachnet to allow prioritization of video traffic. VC is handled by NOC when the Helpdesk submits a remedy ticket. This is usually done after an unsuccessful VC session and is systemic of the core network. They proceed to go through a NOC Forensic Check List with the VCDL contact. (See attachment 3)
- (NOC / OIIT-Tier 4 support) The Board of Regents handles QoS and VC support as they serve UGA and our extended campuses with their VC needs by tagging VC data to pass it through out the Peachnet Network to a Peachnet destination. Peachnet recommends that EITS' NOC is to be Peachnet's main contact for any network related issues for UGA and this will be done through their helpdesk.

VC is a stable and reliable technology if it is utilized using a standards-based approach. The EITS VC link <http://uga.edu/netinfo/vconf/> offers a lot of good information that should be considered when using a VC unit on the UGA campus. EITS is also working on a cost recovery model that will provide VC support to on-campus departments as well as remote campuses. At this time, EITS considers a VC unit a departmental property and therefore supported by the purchasing department. EITS will



continue providing VC core networking support and work with Peachnet to resolve any latency issues or QoS problems as long as the remote call site is connected to a network that is serviced by Peachnet. Any call that exits Peachnet's infrastructure becomes a "best effort" call and may experience latency beyond the control of UGA NOC and Peachnet.

During this committee's work, several committee members, who are also users of VC units on/off campus, expressed a desire to have VC managed centrally by EITS. Although this could be a viable strategy for the service, the level of service is viewed as a future recommendation at this point. Different departments across campus currently own and support their VC units and a centralized VC service may or may not be attractive to all users. However, the committee does talk about the centralized support in the Future Recommendations section of this document.

### **Background:**

The utilization of VC over IP networks on Campus started some time before 2005. In 2005, and in an effort to best support VC for campus users, a committee was formed to produce a QoS strategy for campus and to produce best practices and technical recommendations for supporting the VC service. The 2005 committee's work can be found at <http://uga.edu/netinfo/vconf/> and still stands as a good reference for users who want information about purchasing, installing, and supporting their VC units. The current committee's work is more focused on support and best practices for VC whereas the 2005 committee's work focused more on QoS issues and technical recommendations.

### **UGA Impact:**

The demand for VC is ever increasing, compounded by the reductions of budgets and the need for VC technology to fill a gap, where it was once convenient to travel to a client's site, now it is more cost effective to place a conference call to that client. VC provides a means for departments to save money through utilizing the technology for class instruction (one resource teaching multiple places), constituent collaboration (research and faculty) and administrative meetings (position interviews and other collaborations) by cutting down on travel expenses.

### **Recommendations:**

Short-term recommendations of the committee:

- Higher web visibility, where VC information can be found more readily
- Update the Video Conferencing web site to reflect current added content (content has not been updated since 2006)
- Create a better campus VC phone book –
  - CAES has created a homegrown phone book for internal use
  - College of Pharmacy uses a database created through Tandberg management system.
  - Create a standard Naming Convention for UGA VC users
- Increase bandwidth for incoming internet traffic and / or isolate VC traffic to a dedicated Peachnet connection
- Create a VC Tri-Level in Remedy for NOC



This committee recommends that UGA take full advantage of the VC resources at hand. Those resources include:

- Information for equipment, best practices, support and advertised VC units  
<http://uga.edu/netinfo/vconf/>
- NOC Troubleshooting VC Checklist (Attachment 3)
- VC expectations on campus/off campus (Attachment 4)
- EITS/CITP support through MOU/ SLAs (Attachment 2)
- VC flowchart (Attachment 2)
- VC phone book (<http://uga.edu/netinfo/vconf/advertised.uga.vc.systems.html>)
- Department examples of workflows/best practices (Attachments 1 and 5)

UGA also recommends that departments continue to support their own units for now and that end-users follow provided guidelines. EITS/CITP could provide VC technician support at an hourly rate without a contract or a department may sign up for a service via SLA/MOU. Additional costs would occur for travel to extended campuses.

#### **Future Recommendations:**

Long-term recommendations of the committee:

- Consider making recommendations into policies to improve VC (Attachment 6)
- Investigate a UGA wide maintenance program for subscribed UGA VC units
- Consider a Student Technology Fee funded employee for VC Support
- Build and support a central end-to-end VC solution that can support all campus users and will be centrally managed by EITS. This plan must include a plan for support of services (e.g. scheduling, troubleshooting, maintenance, refresh, etc.)
- Centralized UGA Managed VC solution
  - Staffing- At least one coordinator and one technical
  - Hardware
  - On-Going Maintenance Contract

**Appendix B**  
College of Pharmacy Cost Report (2005-2010)

Initial Equipment Purchase	Codec/Appliance/ Software/License Cost	Associated Audio Visual and Cabling	Installation Cost	Maintenance Cost	Total Cost
Tandberg 6000mxp 337	\$29,000	\$5,786	\$2,200	\$1,750	\$38,736
Tandberg 6000mxp Augusta	\$29,000	\$5,786	\$2,200	\$1,750	\$38,736
Tandberg 550 Dean's Conference	\$4,500	\$4,679		\$1,875	\$11,079
Tandberg 770mxp 338	\$6,100	\$8,232	\$2,900	\$2,150	\$19,382.99
Tandberg Management Suite	\$1,500			\$150	\$1,650
Tandberg 770mxp 362	\$6,990	\$6,598	\$2,500	\$1,875	\$17,963.00
Tandberg 770mxp Augusta	\$6,990		\$1,275	\$1,875	\$10,140
Tandberg 770mxp Albany	\$6,990		\$1,275	\$1,875	\$10,140
Tandberg 6000 NPP	\$2,500.00			\$2,500	\$2,500
Tandberg 6000 Athens Maintenance 05-06				\$1,200	\$1,250
Tandberg TMS 10 License Warranty 05-06				\$750	\$750.00
Tandberg 3000MXP 120	\$11,900	\$18,049	\$3,000	\$1,900	\$34,849
Tandberg 880MXP CE	\$9,400	\$9,935.00	\$3,000	\$2,490	\$24,825
Tandberg 880MXP PBS	\$9,400	\$6,600		\$1,850	\$17,850
Tandberg 880MXP 149	\$9,175			\$1,500.00	\$10,675.00
Tandberg 990MXP Doctor's Hospital	\$11,325.00			\$1,500	\$12,825
Tandberg 990MXP Atlanta	\$11,325.00			\$1,500	\$12,825
Tandberg 990MXP CAP Lab 230	\$11,325.00			\$1,500	\$12,825
Tandberg 880MXP 238	\$9,425			\$1,500	\$10,925
Tandberg 880MXP	\$9,425			\$1,500	\$10,925
Tandberg 880MX CAP 230	\$8,900	\$7,150	\$900	\$2,000	\$18,950
Tandberg TCS	\$19,754			\$2,500	\$22,254
Tandberg 6000 Athens Maintenance 06-07				\$2,200	\$2,200
Tandberg TMS 10 License Warranty 06-07				\$750	\$750
Multi-year Maintenance 08-11 TMS				\$1,562.50	\$1,562.50
Multi-year Maintenance 08-11 TMS License				\$3,125	\$3,125
Multi-year Maintenance 08-11 TCS				\$6,082	\$6,082.19
Multi-year Maintenance 08-11 550 SN# 31A30471				\$650	\$650
Multi-year Maintenance 08-11 3000MXP SN# 33A22342				\$2,337.53	\$2,337.53
Multi-year Maintenance 08-11 880MXP SN# 30A70765				\$1,528.77	\$1,528.77
Multi-year Maintenance 08-11 880MXP SN# 30A70176				\$1,596.58	\$1,596.58
Multi-year Maintenance 08-11 880MXP SN# 30A69484				\$2,554.11	\$2,554.11
Multi-year Maintenance 08-11 880MXP SN# 30A70513				\$1,528.77	\$1,528.77
Multi-year Maintenance 08-11 880MXP SN# 30A70098				\$1,590.14	\$1,590.14
Multi-year Maintenance 08-11 990MXP SN# 30A71262				\$1,467.12	\$1,467.12
Multi-year Maintenance 08-11 6000MXP SN# 25A05457				\$4,086.58	\$4,086.58
Multi-year Maintenance 08-11 770MXP SN# 30A65931				\$754.11	\$754.11
Multi-year Maintenance 08-11 770MXP SN# 30A66314				\$754.11	\$754.11
Multi-year Maintenance 08-11 880MXP SN# 30A72002				\$1,584.25	\$1,584.25
Multi-year Maintenance 08-11 770MXP SN# 30A66491				\$754.11	\$754.11

Multi-year Maintenance 08-11 6000MXP SN# 25A21220					\$3,545.21	\$3,545.21
Multi-year Maintenance 08-11 770MXP SN# 30A66050					\$750.00	\$750.00
Multi-year Maintenance 08-11 990MXP SN# 30A70453					\$1,528.77	\$1,528.77
Multi-year Maintenance 08-11 880MXP SN# 30A69594					\$1,678.77	\$1,678.77
Multi-year Maintenance 08-11 990MXP SN# 30A74816					\$782.88	\$782.88
Multi-year Maintenance Discount						(\$4,829.03)
Codian 4210 MCU Bridge	\$46,700				\$6,810.00	\$53,510.00
Tandberg VCS Expressway	\$14,585.00				\$1,666.67	\$16,251.67
Tandberg VCS Control	\$15,300				\$1,666.67	\$16,966.67
Tandberg Movi (appliance)	\$15,222				\$1,566.67	\$16,788.67
Tandberg TMS Additional 25 licenses	\$3,135				\$3,691.20	\$6,826.20
Tandberg Edge 95MXP-Dean's Conference Room	\$10,265.00				\$2,280	\$12,545
MCG Annex Room AV upgrade		\$4,529.33			\$354.28	\$4,884
Tandberg 880MXP Augusta Conf.	\$9,226.45	\$4,883.61		\$1,399.00	\$1,800	\$17,309.06
Augusta Classroom AV Upgrade		\$2,579.86				\$2,579.86
Movi Trade-In VCSC-10 local, VCSE-10 traversal						\$0.00
Tandberg C90	\$28,353.30				\$2,850	\$31,203.30
Tandberg C90	\$28,353.30				\$2,850	\$31,203.30
Tandberg C90	\$28,353.30				\$2,850	\$31,203.30
Tandberg C90	\$28,353.30				\$2,850	\$31,203.30
	\$442,771	\$84,808	\$20,649		\$109,417	\$652,891

**Appendix C**  
CAES Wimba Spotlight Case Study



## University of Georgia Saves \$21,562, 46,595 miles of travel, and the Earth by using Wimba for Training Sessions

*"The 46,595 less miles traveled represents approximately 17.5 trips driving coast-to-coast across the United States."*

*-Janet Sylvia, Office of Information Technology, University of Georgia's College of Agricultural and Environmental Sciences*

Since 2006, the University of Georgia's (UGA) Cooperative Extension Service has been using Wimba Classroom to deliver training sessions in a live online environment. By holding training sessions online instead of at face-to-face sites, its staff has been able to overcome common constraints such as limited travel budgets, rising fuel costs, and time spent away from county offices and local clientele. In fact, by using Wimba Classroom, UGA Cooperative Extension has seen significant economic benefits in terms of travel dollars and travel time gained, as well as environmental impact savings by reducing statewide travel.

In 1914, Congress established the Cooperative Extension Service to deliver information from land-grant colleges and universities to all Americans, particularly those who lacked access to formal education. Although agriculture and society have changed dramatically during the past 90 years, the University of Georgia Cooperative Extension continues to fulfill its basic mission. County Extension agents help keep farmers abreast of the latest agricultural technology, research and marketing strategies. Some agents

help parents cope with the pressures of balancing home, work and children; others help keep families healthy with information on nutrition and food safety.

Although the University of Georgia had been using Wimba Classroom since 2001 for live online instruction in numerous subjects, its Cooperative Extension Service met at face-to-face sites through 2006. Janet Sylvia of the Office of Information Technology in UGA's College of Agricultural and Environmental Sciences, provides IT support for UGA's Athens, Griffin and Tifton campuses. And thanks to a great deal of cooperation between UGA's Enterprise Information Technology Services, Sylvia was able to give access to Wimba Classroom to the Cooperative Extension Service.

900 extension personnel work in UGA county-based offices throughout the state, all of whom regularly get trained to keep their skills current. When their trainings were held at regional offices in Athens, Griffin, or Tifton, the average face-to-face training session typically had 35 staff per-



University of Georgia  
Cooperative Extension Service  
Athens, Griffin, & Tifton, GA  
[www.caes.uga.edu/extension/](http://www.caes.uga.edu/extension/)

### WIMBA PRODUCTS AND SERVICES

- Wimba Classroom

### KEY BENEFITS

- Traveled 46,595 fewer miles
- Consumed 2,328 fewer gallons of gas
- Released 46,560 fewer pounds of carbon dioxide into the atmosphere
- Saved 1,004 hours of personal time
- Saved the University at least \$21,562

### *The Arch of the University of Georgia*





University of Georgia  
Cooperative Extension Service  
Athens, Griffin, & Tifton, GA  
[www.caes.uga.edu/extension/](http://www.caes.uga.edu/extension/)

## WHAT THEY'RE SAYING

*"There will be several additional benefits as well. Extension had more training opportunities, could conduct more frequent trainings, have shorter training sessions, and training could be conducted as needed or on-the-fly. Extension personnel spent more time in office than on the road."*

*-Janet Sylvia, University of Georgia*

## ABOUT WIMBA

Wimba develops web-based collaboration software designed for online education, language learning and live interactive communications. Our collaborative applications enable learning professionals to fully embrace the new wave of teaching and learning opportunities afforded by the Internet; regardless of geographic location, bandwidth or operating system. Our classroom collaboration solutions enable educators to conduct live, online classes, meetings, office hours and other collaborations, and our language learning tools add oral interaction directly into course content, web-pages, study groups and assessments. With simplicity and power, Wimba adds new dimensions to online, accessible education, enhancing the learning experience for both students and instructors.

sonnel in attendance, required a total of \$1,000 of travel reimbursement, and incurred 100 hours of personnel travel time. Now, via Wimba Classroom, these live online training sessions save travel dollars, travel time, and personnel hours.

For example, Dennis Hancock, Forage Extension Specialist at the UGA Athens campus, conducted two 1.5-hour training sessions with 14 participants from nine counties via Wimba Classroom. He enjoyed the following benefits by using Wimba Classroom instead of having his participants drive to the on-site training facility:

### *Economic Benefits:*

\$700 mileage reimbursement  
84 hours of personnel time

### *Environmental Benefits:*

1,555 miles less traveled  
78 less gallons of gas consumed  
429 less pounds of carbon  
1,560 less pounds of carbon dioxide emitted into the atmosphere

Similarly, Todd Hurt, Training Coordinator for the Center for Urban Agriculture at UGA's Griffin campus, held four 1-hour live online sessions with 349 participants from 18 counties via Wimba Classroom. He too enjoyed economic and environmental benefits:

### *Economic Benefits:*

\$6,000 mileage reimbursement  
200 hours of personnel time

### *Environmental Benefits:*

12,344 miles less traveled

617 less gallons of gas consumed  
3,400 less pounds of carbon (1.7 tons)  
12,340 less pounds of carbon dioxide emitted into the atmosphere (5.5 tons)

Throughout 2007, in addition to these training sessions held by Hancock and Hurt, UGA held numerous County Extension Coordinator (CEC) orientation sessions, CEC staff meetings, Agent Trainings in agronomist grains, and agricultural Agent Trainings.

Overall, the Cooperative Extension Service conducted 35 live online sessions and had 633 participants from 82 counties across the entire state for tremendous savings:

### *Economic Benefits:*

\$21,562 mileage reimbursement  
1,004 hours of personnel time

### *Environmental Benefits:*

45,595 miles less traveled  
2,328 less gallons of gas consumed  
12,804 less pounds of carbon (6.4 tons)  
46,560 less pounds of carbon dioxide emitted into the atmosphere (23.3 tons)

"The 46,595 less miles traveled represents approximately 17.5 trips driving coast-to-coast across the United States," says Sylvia.

"There will be several additional benefits as well. Extension had more training opportunities, could conduct more frequent trainings, have shorter training sessions, and training could be conducted as needed or on-the-fly. Extension personnel spent more time in office than on the road."

## **Appendix D**

Extended Sites Executive Summary and Report (2010)

## **Recommendations of the Extended UGA Sites IT Committee Executive Summary**

The Extended UGA Sites IT Committee had its first meeting on October 24, 2008 and met regularly (approximately 12 meetings total) through March, 2010. During that period of time, the following major activities were undertaken:

- A review of all UGA locations, both nationally and internationally
- A review of the services offered by EITS, with a ranking of those services based on the number of locations that need or have an interest in them
- A prioritized discussion of many of the EITS services (see Appendix A for a list of the discussed services) and the needs of extended UGA sites for these services as well as the identification of services needed but not offered by EITS
- A set of strategic and tactical recommendations that, if acted upon, would benefit extended UGA sites

Based on its discussions, the Committee offered the following strategic recommendations (with additional detail found in the full recommendations document):

- The University should adopt the Strategic Principle that all UGA sites should be taken into consideration for all IT activities;
- There needs to be a major, institutional initiative focused on the effective use of “distance engagement” technologies. Distance engagement (DE) encompasses more than just distance education. It uses a number of tools to support effective interactions among individuals engaged in education, research and public service and outreach activities;
- UGA needs to develop a initiative focused on using the central calendar service (with support for a variety of client programs including mobile applications) as a strategic, enterprise tool (e.g., resource reservations, UGA events, etc.) in addition to using the service as a scheduling tool for students, faculty and staff;
- Standardization of technology and processes could provide significant savings in terms of personnel and training;
- UGA should focus on developing a full-featured, collaboration portal (in addition to the information portals in place) which contains a set of tools to foster collaborations among students, faculty and staff; the Microsoft Sharepoint service is one example of a collaboration portal;
- When maintenance negotiations for IT services are underway, the needs of extended UGA sites should be taken into account;
- A remote support model needs to be developed for those extended UGA sites (e.g., Sapelo, Cortona, etc.) that don't have any onsite IT support staff;
- A coordinated, institutional effort needs to be undertaken to develop effective methods to provide authorized access to information from any extended UGA site location through the use of enterprise directory services, especially Active Directory services for desktop platforms;
- An individual representing extended sites should be appointed to the Distance Education task force/working group being formed, if someone has not already been appointed.

In addition to the strategic recommendations listed above, the Extended UGA Sites IT Committee offered 12 tactical recommendations (which can be found in the full recommendations document).

## Recommendations of the Extended UGA Sites IT Committee

The University of Georgia offers a variety of undergraduate and graduate degree programs, a variety of certificate programs in a variety of fields, and non-credit programs for professional development across the state including four *extended* campus locations. These sites include the Griffin, Tifton, Terry College of Business Campus in Buckhead, and the newly located Gwinnett Campus in Lawrenceville. In addition, UGA has an extended presence in Cooperative Extension offices, Public Service and Outreach programs (ITOS, SBDC, Georgia Center, etc.) and the Study Abroad opportunities.

In order to better serve the information technology needs of these University of Georgia locations, the *Extended UGA Sites Information Technology (IT) Committee* was appointed by the Chief Information Officer in August, 2008 and was charged with the following:

- Identification of the Information Technology needs and requirements of extended UGA sites;
- Mapping of needs and requirements in concert with standards, policies and core services offered by the University of Georgia residential campus through Enterprise Information Technology Services (EITS) keeping in mind specialized needs not represented by current residential campus services;
- Prioritization of efforts required to identify solutions and/or services that address IT requirements at extended UGA sites;
- Review and recommended solutions and/or services including risk-and cost-estimates for required hardware, software and personnel resources to support required services; and
- Recommended solutions and/or services including, but not limited to, supporting implementation, funding, ongoing management, future maintenance and upgrades, and personnel support.

The membership of this committee includes the following:

Member	Title	Unit Representation/Role
Chris Adcock	IT Director	College of Agriculture and Environmental Sciences and Cooperative Extension
Jerry Arkin	Assistant Provost	Griffin Campus
Bill Blum	IT Senior Manager	Griffin Campus
Bob Boehmer	Associate Provost	Extended Academic Campuses
Cathy Clutter	Director	Extended Academic Campuses
Micah Cooper	IT Professional	Office of International Education
Be-Atrice Cunningham	Administrative Assistant	Griffin Campus
Mike Dennis	Associate CIO	Committee Sponsor
Mark Ellenberg	IT Director	College of Family and Consumer Sciences
Brad Hunt	IT Executive Director	Terry College of Business
Sylvia Marrotti	IT Manager	Tifton Campus
David Matthews-Morgan	IT Director	Committee Chair
Eric McRae	Associate Director	Public Service and Outreach (ITOS, SBDC, Georgia Center, Fanning Institute, etc.)
Christine Miller	Assistant Dean for IT	Franklin College of Arts and Sciences

Don Mofield	Network Admin. Spec.	Gwinnett Campus
Mark Walters	Interim IT Executive Director	College of Education
Joe West	Assistant Dean	Tifton Campus

The Extended UGA Sites IT Committee had its first meeting on October 24, 2008 and met regularly through March, 2010. During that period of time, the following major activities were undertaken:

- A review of all UGA locations, both nationally and internationally
- A review of the services offered by EITS, with a ranking of those services based on the number of locations that need or have an interest in them
- A prioritized discussion of many of the EITS services (see Appendix A for a list of the discussed services) and the needs of extended UGA sites for these services as well as the identification of services needed but not offered by EITS
- A set of strategic and tactical recommendations that, if acted upon, would benefit extended UGA sites

The Extended UGA Sites IT Committee did not discuss solutions to meet the needs of extended UGA sites. However, based on its discussions, the Committee offers the following strategic recommendations:

- The University should adopt the Strategic Principle that all UGA sites (listed in Appendix B) should be taken into consideration for all IT activities including:
  - Deliberate (vs. ad hoc) planning for IT initiatives (infrastructure and human resource requirements)
  - Implementation of IT initiatives (following standard project management practices)
  - Maintenance of IT infrastructure and services
  - Ongoing financial support of IT infrastructure, services, and adequate staffing levels
  - Understanding implications of IT policies and procedures on processes and personnel
- There needs to be a major, institutional initiative focused on the effective use of “distance engagement” technologies. Distance engagement (DE) encompasses more than just distance education. It uses a number of tools to support effective interactions among individuals engaged in education, research and public service and outreach activities:
  - Examples of DE tools include videoconferencing, web conferencing, phone conferencing, learning management systems, email and calendaring, instant messaging, video on demand, podcasting, etc.
  - A well-defined DE service and support model (including standards, scheduling, maintenance, lifecycle planning, etc.) that meets the needs of extended UGA sites should be developed
  - Best practices need to be developed describing which DE technology (or technologies) are most suitable for a given activity
  - A comprehensive training program in the use of various DE technologies should be developed for faculty and staff on all campuses
- UGA needs to develop a initiative focused on using the central calendar service (with support for a variety of client programs including mobile applications) as a strategic, enterprise tool (e.g., resource reservations, UGA events, etc.) in addition to using the service as a scheduling tool for students, faculty and staff;

- Standardization of technology and processes could provide significant savings in terms of personnel and training. Some of the items that should be considered for standardization include:
  - Instant messaging tool in Microsoft's Live@EDU service
  - Remote desktop support suite (e.g., Altiris)
  - Videoconferencing equipment with standard features
  - Web conferencing (such as GoToMeeting and Webex)
- UGA should focus on developing a full-featured, collaboration portal (in addition to the information portals in place) which contains a set of tools to foster collaborations among students, faculty and staff; the Microsoft Sharepoint service is one example of a collaboration portal
- When maintenance negotiations for IT services are underway, the needs of extended UGA sites should be taken into account:
  - Liaisons at the major extended campuses and ones for groups such as Cooperative Extension Services need to be identified who can interface with an enterprise liaison regarding licensing and maintenance negotiations
  - Cost-effective maintenance agreements for videoconferencing and audio/visual equipment need to be pursued, and all videoconferencing units;
- A remote support model needs to be developed for those extended UGA sites (e.g., Sapelo, Cortona, etc.) that don't have any onsite IT support staff;
- A coordinated, institutional effort needs to be undertaken to develop effective methods to provide authorized access to information from any extended UGA site location through the use of enterprise directory services, especially Active Directory services for desktop platforms;
- An individual representing extended sites should be appointed to the Distance Education task force/working group being formed, if someone has not already been appointed.

In addition to the strategic recommendations listed above, the Extended UGA Sites IT Committee offers the following tactical recommendations:

- Extended sites administrators need a mechanism to find out the list of services blocked (and allowed) through the edge firewalls on the Athens campus so they can determine if a blocked service is affecting their customers;
- Extended sites need assistance from Information Security to develop local incident response procedures that are consistent with institutional ones;
- County extension offices need vulnerability assessments conducted;
- EITS and Peachnet need to work together to prioritize, if possible, timing sensitive learning management traffic such as Horizon Wimba;
- Support and best practices for software-based videoconferencing services need to be developed;
- A central database of videoconferencing units needs to be developed and maintained which can be used to populate and keep current the internal phonebook directories in videoconferencing units;
- There should be a standard process involving departmental IT staff, EITS staff and Peachnet staff (when applicable) and possibly Procurement before videoconferencing equipment is purchased and when it is installed and configured;
- A repository of network software updates needs to be developed to allow IT staff a way to easily download these updates;

- Additional affiliation attributes need to be propagated to the Active Directory repository to reference when setting policies such as authorization and access control rules;
- EITS should consider modifying its weekend HelpDesk hours, especially for Saturday morning classes on extended campuses, from 11:00 a.m.-7:00 p.m. to 8:00 a.m.-4:00 p.m.;
- The efforts of the Extended Sites IT Committee should be noted in SACS documentation.

## Appendix A

### Service Items Discussed

- Security Awareness Training and Education
- Network Security
- Endpoint Security
- Incident Response
- Vulnerability Management
- Risk Management
- Email, Calendaring and Collaboration
- Portal Services
- Disaster Recovery Planning
- Maintenance Negotiations
- Learning Management Systems and Support
- Help Desk
- Videoconferencing
- Mobile Device Support
- Messaging Services
- Network Design and Consultation
- Wireless Network Operations
- Cable Installation Services
- Enterprise Directory Services & Campus Active Directory

## Appendix B

### The University of Georgia Enterprise includes:

- Athens Campus
- Gwinnett Campus
- Terry College Executive Business in Buckhead
- Griffin Campus
- Tifton Campus
- Marine Institute at Sapelo
- Savannah River Ecology Lab
- Public Service and Outreach
  - International Public Service and Outreach
  - UGA Marine Extension (Skidaway Marine Science Campus)
  - Carl Vinson Institute of Government
  - Georgia Center
  - Small Business Development (18 field offices)
  - Fanning Institute
  - State Botanical Garden
  - College of Agriculture
    - UGA Campus Research and Education Centers
    - 159 County Extension Offices
    - Five 4-H Centers
- International Education
  - Oxford
  - Costa Rica
  - Cortona