myMiami and Blackboard Enhancements Coming Soon

Blackboard and myMiami have become increasingly critical web services for the university community over the past several years. Both are heavily used on a daily basis by students, faculty, and staff. Over the past six months, IT Services met with groups across the university to investigate the future direction for these two services. Out of that investigation came a plan to combine the two services into a single service, based on Blackboard, and to enhance the newly combined service in terms of functionality and reliability.

The new Blackboard environment will allow the university to deliver targeted content and services to individuals based on their role at the university. It will also expand the university's ability to communicate through the use of surveys, discussion forums, announcements, etc. and to offer more services from a single location.

Over the next several months, IT Services will be enhancing the system architecture for the new Blackboard service. The Blackboard Community System and the Blackboard Content System will be added to Miami's existing Blackboard system to provide the capabilities outlined above as well as to ease the job of managing content within Blackboard. Several teams from across the university will be working together to decide on content, layout, functionality, policies, and support for this new environment.

Additional information is available at http://www.muohio.edu/mymiami3/. If you have suggested features, comments, or would like to volunteer to help with these projects, please contact the IT Services Support Desk at 513-529-7900 or supportdesk@muohio.edu.

About Blackboard

Blackboard supplements classroom instruction by allowing faculty and students to communicate and share course materials via the network outside of normal class times.

Blackboard is now used in over 40% of courses taught at Miami University with 86% of students having at least one course using Blackboard each semester. On a typical day, Blackboard is accessed over 14,000 times by students and faculty.

About myMiami

myMiami provides a starting point for web services across campus. Students, faculty, and staff use myMiami to access their email, network disk space, Blackboard, BannerWeb, MInE, University announcements, University news, calendars, and many other web services.

On a typical day, myMiami is accessed over 43,000 times by more than 13,500 different students, faculty, and staff.
Miami Joins Ohio's Third Frontier Network, Doubling Internet Bandwidth

Early Sunday morning 2/6/05, Miami "turned on" a fiber-optic connection to the State of Ohio Third Frontier Network - the most advanced state-wide computer network in the nation. The Third Frontier Network consists of 1,600 miles of fiber-optic cable and provides ultra high speed access to regional and national research networks as well as the Internet and Internet2. With the Third Frontier Network connection, Miami's Internet bandwidth immediately doubled - providing improved response times and speeding retrieval of information. Miami now has 100 mb/s of Internet1 bandwidth, 24 mb/s of Internet2 bandwidth, and 176 mb/s of in-state Third Frontier Network bandwidth.

IT Services welcomes comments about the Internet connection or performance problems you may encounter. Please contact the IT Services Support Desk at 513-529-7900 or supportdesk@muohio.edu with comments or questions.

The Third Frontier Network has been built and managed by OARnet (www.oar.net), the regional higher education-focused Internet Service Provider that provides Internet connectivity to Miami. More information on the Third Frontier Network can be found at http://www.osc.edu/oarnet/tfn/.

Residence Hall Network Access Management System (NAMS)

Two new Network Protection Services are scheduled to roll-out to the residence halls beginning in mid-February and continuing through mid-April. The addition of these services is the next step in combating the problems created by viruses, spyware, and the negative impact of infected computers on Miami’s network.

**Network Authentication.** Users will now be required to log in to the network. A login can stay active for a maximum of seven days, at which point the user will need to log in again. Those with Windows computers will be asked to install a Network Authentication Agent, called SmartEnforcer, that will be used to authenticate to the network. Non-Windows users, such as those with Macintosh or Linux computers, will use a web page to log in.

Devices that use the network, but do not have a web browser (examples: Xbox, PlayStation, Tivo), will have to be registered to receive network access. The registration system is available at http://www.muohio.edu/networkregistration/.

**Minimum Standards Enforcement.** When a user logs in to the network, the device they are using will be tested by SmartEnforcer to ensure it meets a minimum set of requirements. (Currently, this minimum is limited to Windows computers.) SmartEnforcer will evaluate if:

1. Virus Protection software is installed
2. The Virus Protection software is up-to-date
3. All available critical Windows Updates are installed

If a Windows computer fails any of these tests, it will be placed in a Remediation Network where access is limited to the resources needed to correct the problem. Instructions will be provided for installing the necessary updates.

Campus-wide communications to alert students about these changes will include press releases, newspaper and myMiami announcements, targeted e-mails, and residence hall announcements, as well as presentations to Associated Student Government, the Residence Hall Association, and Residence Life.

These new additions to MUnet make tremendous strides towards ensuring a safe, stable network environment that is virus-free and vulnerability-free. If you have any questions or problems connecting to Miami's network in the residence halls, please contact the IT Services Support Desk at 513-529-7900 or supportdesk@muohio.edu.
E-Mail Message Filtering Available on myMiami

An e-mail filtering feature has been added to the myMiami e-mail application. This filtering feature enables users to better organize their e-mail by automatically moving messages meeting specified criteria into designated folders. These filters can be configured to scan all messages or only unread messages based on the To, From, and Subject lines as well as the mail header and other content in the message.

IT Services encourages use of this feature, in conjunction with the new Spam scoring system, to filter unsolicited bulk e-mail (spam). Users should first create a folder titled Spam30, and then configure a filter for messages with a Spam score so they will be transferred to the Spam30 mailbox. IT Services will actively monitor the Spam30 mail folder and delete e-mail transferred to this folder from Miami’s e-mail server 30 days after the date the message was received. You can transfer the spam to any folder, but we recommend the Spam30 folder as it will be actively monitored to remove spam.

For detailed instructions on creating a Spam30 folder and spam filter for myMiami e-mail, please refer to the Knowledge Base case 81820 on “Creating a Spam Filter in myMiami Mail”. If you have any problems using the filtering feature, please contact the IT Services Support Desk at 513-529-7900 or supportdesk@muohio.edu.

Oxford Area Wireless Evaluation Planned for Spring

IT Services will be conducting a pilot project during spring semester to evaluate the ability to cost-effectively provide high speed network access to off-campus users using a 802.20 wireless solution. 802.20 is an emerging wireless standard designed to provide users with wireless service without having direct line-of-sight to the wireless antenna. Most other standards require direct line-of-sight to the antenna sending and receiving the signal. The equipment being evaluated is from Navini Networks and will be supported by NEC.

Currently, the availability of broadband network access to off-campus users is limited to providers such as Time Warner with Road Runner and, recently, Verizon with its DSL offering. An end user purchasing these services pays approximately $30-$50 per month, and may be required to commit to a long term contract. Through Miami’s Network Services Enterprise (NSE), Miami has been “reselling” the Time Warner Road Runner service for over four years, with a current monthly rate of $17.50 for students and $27.50 for Faculty/Staff on a month-to-month basis. Miami’s contract with Time Warner to provide these services increases each year, so alternatives are being considered in order to hold down costs to clients.

The purpose of the pilot is to answer critical questions about the services, such as:

- Will customers be satisfied with the speeds and bandwidth available?
- Can this service be supported and maintained?
- What are the real costs of providing this service?
- What indirect benefits are there from this service?

Once there are answers to these questions, a decision can be made on whether this service should continue to be developed and expanded. An update on the results of the Oxford Area Wireless pilot will be communicated in a future edition of TechTalk.

NOTE: IT Services will be seeking 400-500 off-campus students residing in the Oxford area to participate in the upcoming Oxford Area Wireless pilot. Invitations to participate will be sent via e-mail to off-campus students currently subscribing to RoadRunner through the NSE before the pilot launches.
MU Wireless Update

IT Services is now into the second half of the MU Wireless implementation. A few enhancements have been made to the existing service in the residence halls and the planning for the state-building (academic and professional buildings) installation is well underway.

Residence Hall Service Enhancements

- In response to feedback on the residential service, IT Services has added instant messaging to the applications available over MU Wireless in ResNet. The following applications have been added:
  - AOL Instant Messenger
  - Yahoo! Messenger
  - MSN Messenger
  - iChat

  Note: Please remember, wireless traffic is very easy to intercept. MU Wireless does not yet encrypt your wireless network communications unless you install and use the Virtual Private Networking (VPN) client.

- The Virtual Private Networking (VPN) client is now available for installation and use on MU Wireless. Using the VPN client encrypts your wireless network communications and allows you to use the full range of network services (e-mail, online services, FTP, etc.). For information on installation and use of the VPN client, visit the Knowledge Base.

Academic/Administrative Building Installation

- The campus-wide expansion of wireless installations in academic/administrative buildings, which is scheduled to occur this semester, has been delayed somewhat as a result of the need to issue an RFP for the wiring installation in these state-funded buildings. Installation of the wiring for the access points (APs) is now slated to occur during the latter part of the semester and wireless service will be activated and available in the summer.

- Existing wireless networks in academic and administrative buildings will be transitioning to MU Wireless service (from the current WAM service) at the beginning of the summer.

If you have questions about MU Wireless, please contact the IT Services Support Desk at 513-529-7900 or supportdesk@muohio.edu or visit the Knowledge Base at http://kb.muohio.edu.
Banner System Planning

With the successful upgrade of Banner to version 6 in October, 2004, IT Services has begun to take on many new, exciting projects to bring more functionality to Miami’s Banner users. Listed below are just a few of the larger projects - many more are underway. In the Spring timeframe, a brief electronic survey will be sent to all Miami Banner users to gather input on additional features that might be considered to make Banner as effective as possible.

Internet-native Banner access: One key change that will be taking place over the next months affects how all Banner clients will gain access to Banner. We currently operate under what is known as the "client/server" model to access Banner. Simply put, this means there is a piece of Banner software that must be loaded on users’ desktop PCs in order for them to communicate with the Banner database server. However, in more recent releases of Banner, including our current version 6, there is a new, preferred option that allows Banner access through a standard web browser such as Internet Explorer. SungardSCT, the vendor of the Banner system, has announced that with Banner version 7 (due out this year), the web browser access will be the only method to access Banner. In preparation for this required change, IT Services will begin testing this Spring to ensure that all current Banner functionality is present in the web-browser access model, and also will begin test deployments with several offices on campus to have them assist us in verifying that everything is as it should be. It is our hope that we can completely convert everyone’s access to Banner to this new model by the end of 2005. The other advantage to this is that there will no longer be a need to maintain the Banner client software on every user’s PC, and that Macintosh users will not need to use the Citrix Metaframe software to gain access to Banner. Shortly, we will be communicating with all Banner users about the various web browsers and browser versions that are supported for Internet-Native Banner for both Macintosh and Windows PC users.

Online requisitioning: In conjunction with Finance and Business Services, IT Services is participating in a project to look at various parts of Banner and BannerWeb that allow the online submission and electronic approval routing of purchase requisitions from the requesting department ultimately to the Purchasing department, where it is then turned into a purchase order and issued to the vendor. Other methods of purchasing at Miami, such as LPOs, are also to be examined and opportunities for process improvements made. More details will be made available as soon as the scope of this project is fully defined.

Document Imaging and Electronic Workflow: At an earlier point in the Banner implementation project, Miami had purchased the third-party document imaging software that is integrated with the Banner system. This software stores document images for archival purposes and also potentially for electronic transfer between offices for quicker response time than sending paper copies across campus. Efforts are underway with several offices currently to initiate the first phase of deploying this software, initially to store documents and free up physical storage in several campus locations, as well as providing a disaster-tolerant alternative to the current paper files. In the future, as process re-engineering efforts are undertaken, features to automate processes will be explored using this software.

More information about these new offerings will be announced in the coming months.
Employee Services Online

Last December, IT Services finished work associated with the release of a new BannerWeb module, Employee Services Online. This new addition to Miami's Banner environment allows all employees to access their personal information, such as pay stubs (retroactive to 1999, when the Banner system was implemented), W2 information, employee benefit information, and tax withholding status, at their convenience via the web. Future phases of this project over the next few months will allow employees to have more control over updating certain items of their personal information, enrolling online for benefits such as dental plans, medical plans, and flexible spending accounts. Further, unclassified staff will be able to request and report vacation and sick time via Employee Services Online.

To ensure that the security of employee information is not compromised, all of the data is stored in the same manner as it has been since Banner was implemented at Miami in 1999--in a secure Oracle database behind several types of firewalls and other methods that ensure security. BannerWeb is just another secure 'window' into Banner data, using your Miami UniqueID and password. As a further protection, the data between your computer and the Banner server is fully encrypted Internet security technology, similar to what many large Internet-based vendors such as Amazon.com and others use to protect your private information. As a best practice, as well as abiding by Miami's Appropriate Use policy, your password should never be shared with others, since it does control access to so many systems, not just BannerWeb.

To learn more about Employee Services Online, please view the online demo by visiting the Miami University Training Opportunities Web page at http://www.muohio.edu/training and then selecting "Employee Services Online" from the Miami-developed Courses list.

IT Services Upgrading DNS and DHCP Services

DNS and DHCP services are critical to the functioning of Miami's network:

- DHCP is responsible for assigning IP addresses to all computers attached to Miami's network so they can communicate with the network.
- DNS translates Miami URLs and other names into Internet addresses so that Miami’s web pages, etc. can be accessed via the Internet.

To ensure continuity of network service, IT Services is in the process of implementing a new, significantly more robust, multi-server DNS and DHCP solution from Infoblox. The new servers will be housed in multiple buildings. With the new solution, network operations will be able to continue without interruption in the event of the failure of equipment in one of the buildings.

The Oxford campus moved to using the Infoblox service to resolve DNS names in early January. The planned early January move of the DHCP service for the Oxford campus to the Infoblox implementation was temporarily postponed when an issue with the vendor software was encountered during final pre-production testing. The vendor recognizes this as a bug in their code and expects to have a fix in the next version of the software, which is due out within 30 days. We are currently planning to move central DHCP service for the Oxford campus to the Infoblox solution over Spring Break. There may be a 2-hour period when network service is unavailable while the move is taking place; the outage will be scheduled for the very early morning hours. Please look for further announcements in myMiami.

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Integrating Technology into Teaching - Faculty Spotlight

Dr. Jim Aimers is a visiting Assistant Professor in the Anthropology department. He uses a combination of multimedia-enriched PowerPoint and collaboratively developed web sites to bring deeper meaning to his anthropology lecture courses.

“Multimedia works very well in courses on world cultures, it gives (students) some sense of the experience of another culture” says Dr. Aimers. “I can also associate any abstract concept with a particular image and this serves as a mnemonic for students. For instance, Dr. Aimers uses an image of Ozzy Osborne as an example of "phenotype" which helps students recall this obscure term.”

In addition to sprucing up in-class PowerPoint presentations, Dr. Aimers has created a collaborative web site that allows students to use Macromedia Contribute to present their own research in a real world setting. “Students recognize this and I think they work a little harder because of it.” For the spring ’05 semester of his Honors section of the ATH 175 Peoples of the World course, the students will examine the chain of production of goods imported to the US and purchased right here on campus. "The ATH 175 web project brings my students’ research into the "real world" where others can see it and use it. The web sites they produce will be useful for human rights organizations investigating global labor issues. Web-based presentation of research makes student research more than an end in itself, and makes my anthropology classes more applied.”

The structure of the ATH 175 project web site allows students to focus on the content of their research while eliminating the need to learn HTML coding. The site uses a web-ready template that shows students the basic elements required for writing a social science paper, a skill that they can use for the rest of their academic careers. Dr. Aimers states, “The research process teaches students about the differences between high quality and low quality scholarly resources. They also learn about copyright issues because they post images.” In addition, the students can also refer to previous students’ web sites for guidance when working on their own.

Dr. Aimers admits that his recent classes take much more preparation time than the previous standard lecture courses because of his use of technology, but says “the unexpected benefits are worth it. My students are very comfortable with technology--this keeps me in step with them, and this has benefited my research. The ATH 175 web project has inspired me to start an online peer-reviewed archaeological journal at Miami.”

Based on his recent teaching experiences, Dr. Aimers concludes “I see technology as a set of useful and sometimes inspiring tools, but the fundamentals of good teaching don't change all that much in my opinion.”

The ATH 175 course web site can be seen as a work-in-progress at http://www.muohio.edu/ath175.

To explore how technology can be used to enhance your teaching, please contact Advanced Learning Technologies at http://www.muohio.edu/alt.
Why No Firewall?
(by Richard Knowles, University Information Security Officer)

Several years ago, when the cost of a firewall ran to thousands of dollars, there might have been an excuse not to apply this protection between your home computer and the Internet, but today it is inexcusable. At this present time there exist armies of compromised computers, waiting to be directed against web sites and Internet infrastructure. All because they were left unprotected and easy picking for enterprising hackers. Could your computer be one of these?

I am, and have been, firewalled against the outside for years. Each day I review the log it provides me of attempted scans and intrusions directed against my IP address that it has taken action against.

Let me first say there is nothing particularly alluring about my IP, and it is not a source for web pages or other services, it is merely an ISP provided broadband web page.

Nevertheless, every day there is evidence of fifty or more scans directed at my IP. If I go to the Internet Storm Center I see that the ports scanned on my log are representative of all this misbehavior throughout the world.

If I force a change of my IP address, guess what? The scanning continues unabated! It is the same scanning, although I’m now at a different IP. This means that many of the scanners are selecting who they scan incrementally (one address at a time).

There are several forms of firewalls that you can employ. The simplest is the software firewall, such as the one built in to Windows XP SP2. This software sits between the Internet and your operating system, blocking uninvited accesses and yet permitting you to communicate with the outside as usual.

Another category of firewall that is quite effective is the home firewall router appliance, which may cost as little as fifty dollars. These firewalls are placed between your cable modem or DSL modem and your computer. Depending upon how fancy you want to get, these appliances can perform logging as well as permit you to open or close external ports as you wish to customize your connection to the outside.

The important thing to remember is that when firewall protected computers are scanned from the outside, they appear invisible. External scanners do not get responses from them, and you are to some extent protected by this fact. Please note that I am not using absolute terms here since the bad guys™ are constantly changing their approach and discovering new techniques to open the locks on our computer’s doors.

In closing let me say that if you are currently running a computer that is connected to the Internet, you need to take a number of protective measures: keep operating system updates current; make sure that you are using virus protection and that it is up to date, and consider using a software or hardware firewall to add a measure of protection that is really needed.
Spring Technology Training Opportunities

Web-based Training Open Sessions Continue

IT Services is continuing to offer open sessions for the entire University community on our web-based training tools. These open sessions have two purposes. They allow faculty, staff and students an opportunity to learn how to use SkillPort and VTC to enhance their technology knowledge and business skills, and they allow users a place to work on courses away from their normal working environment, with an instructor available to answer questions.

Open sessions are currently scheduled twice a month through May. Visit the TRAIN registration system at http://www.muohio.edu/train for a complete list of days and times, and to register for sessions.

Spring Banner Navigation Training Sessions Announced

There will be two Banner 6.x Navigation Training classes presented in the next few months. In this class, an instructor will lead participants through all the basic features of Banner navigation. The class will not address individual departmental forms; it is focused on navigation only and is designed for staff new to Banner or those who want a basic review in a classroom setting.

The classes will take place on March 15 and April 14. Both classes are scheduled from 1:30 pm to 4:30 pm, and will be held in 362 Gaskill Hall. Visit the TRAIN registration system at http://www.muohio.edu/train for more information, and to register for a session.