IT Strategic Planning Moves into its Developmental Stage

As many of you are aware, our Information Technology Strategic Planning process has been underway since August. Up until this time, we have been involved in an extensive input gathering phase that began in September, 2003, with eighteen “think tank” sessions held with 125 technologically savvy students, faculty and staff across the university. Information gathered in those sessions formed the basis for a campus-wide web survey for students, faculty, staff, and focus groups. The web survey was conducted October 6-24, 2003, and a total of 792 responses were received. Most of these responses were excellent sources of input regarding information technology needs of our institution. Our consultants from Cornelius and Associates, Inc. are currently compiling the results. In addition, a web survey directed primarily at technology support representatives was distributed on October 17, 2003. To date, 48 responses have been received.

We continued to seek input through 35 focus groups and targeted group sessions that were being held with students, faculty and staff from October 20 through November 14 on the Oxford, Hamilton and Middletown campuses. As the collected information is classified and organized, we shall be presenting some preliminary concepts to the president, vice presidents, deans and senate groups. At the same time this internal assessment was occurring, we have also been collecting information about the higher education community’s current issues in information technology and looking at IT strategic plans for several peer institutions.

The IT Strategic Planning Core Team will hold planning sessions on December 2nd and 4th to discuss the report prepared by Cornelius and Associates based upon all gathered input. The core team will begin drafting the plan, with a target publication date for university review by mid-January 2004. The current project plan calls for a campus-wide distribution of the proposed draft plan document, followed by solicitation of written questions, suggested revision and additional comments from the various components making up our university. Once we have received these comments, we plan that public forum sessions will be held throughout the university to interact with those providing comments. Finally, the Core Team will address the written comments, and forward its recommend plan for adoption by the university.

After the general plan is adopted, further work will continue through April, 2004, to more carefully identify action items or tactical plans for the upcoming fiscal year 2004-2005. This action plan will state specific major projects, as well as “quick win” smaller projects to be undertaken to move the university toward its strategic information technology direction during the upcoming year.

For regularly updated information about the IT Strategic Planning process, please visit the IT Strategic Planning web site at http://www.muohio.edu/ITStrategicPlan. Please let me know if I can answer any questions about this planning process. I appreciate all of the effort that has been invested in this planning process to date and I am looking forward to working with the community to make things happen as the plan unfolds.

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Update on Worm Crisis

This academic year has introduced new challenges for network operators and Windows computer owners. The problems created by the Blaster and related worms have kept Miami’s IT Services, and IT departments across the country, very busy. Here at Miami, much time and effort was exerted to ensure that the services provided on the network remained available. Hundreds, if not thousands, of machines were infected with one of these worms and yet network services were maintained throughout campus. The negative effects of these worms are often hidden to the typical computer user. Blaster and Welchia etc. are not necessarily noticeable on the machines on which they reside. It is the manner in which they spread to other computers that is causing so much trouble. First, computers become infected without any action by the user. Unlike many other viruses, there is no attachment to open or program to run. Simply having an unprotected computer on the network allows the worm to spread. Secondly, these worms make a large number of requests of network devices - so large that most devices cannot handle all the requests in a timely manner. This burden on network devices can disrupt other services, such as web browsing or email. The impact of these infections is such that a few infected machines in a single building can threaten the entire network.

In order to prevent the network from becoming overwhelmed by the requests generated by these worms, IT Services placed restrictions on the types of network traffic that can flow between buildings on campus. Putting these measures in place has enabled us to keep services running without having to shut down any buildings or segments of the network. While preserving the network, these measures come at the cost of adding complexity to the network (which can be problematic) as well as preventing legitimate uses of the types of network traffic that have been blocked.

The network is being continuously monitored to identify machines that are infected with one of these worms. In the residence halls, network access to infected computers is disabled daily whenever possible. For more information on the residence hall process, visit [http://www.muohio.edu/disableddatajacks/](http://www.muohio.edu/disableddatajacks/). In the academic buildings, the Technology Support Representatives for the departments are informed of infected machines so that they can be serviced.

To combat the ill-effects of the worms that exploit the RPC DCOM flaw in Windows, IT Services has offered (and continues to offer) a variety of services to help rid the campus of this infestation.

Technicians were on-site in the residence halls extensively during the first two weeks of the semester. When possible, technicians worked with residents to install the necessary patches and remove the virus program when found.

A CD that detects and removes Blaster and Welchia as well as installing the windows update that fixes the flaw in the RPC DCOM program was distributed to every residence hall room and to each student organization. Off-campus residents can obtain a copy of the CD by visiting the Support Desk at 324 Gaskill Hall.

Detection and removal tools for the two most common RPC DCOM worms can be downloaded from [http://software.muohio.edu/](http://software.muohio.edu/). Complete details on how to detect and remove these worms are available in the Knowledge Base: [Protecting your Windows computer from Blaster/Welchia](http://www.muohio.edu/disableddatajacks/).

The Support Desk has been servicing machines in 324 Gaskill Hall. Anyone with a computer infected with an RPC DCOM worm is invited to bring it to 324 Gaskill Hall for service.

These worms have given rise to a new era in network administration and support. While these sorts of viruses and even the type of vulnerability that was exploited have existed before now, the magnitude of the problems created by Blaster have given rise to discussions about how to best protect the integrity of the network so that legitimate uses of it continue uninterrupted. IT Services will be investigating a variety of solutions to ensure that the online services that our faculty, staff, and students wish to use are not hindered by compromised machines on the network.
Influence of Blaster Worm Activity on Miami Services

From mid-August through October, Miami’s network performance suffered from the tremendous volume of traffic generated by Blaster, despite dramatic containment efforts undertaken by IT Services staff. The most visible effect was that response time lengthened for many applications, including Kronos, MInE, Student Health Services, Career Services and logins for myMiami, BannerWeb and Blackboard. Paradoxically, other applications continued to perform normally. The diagnosis of the problem was complex; the short story is that a configuration setting needed to be adjusted, due to the increase in traffic – and diagnosing configuration issues becomes much more difficult when a network is under attack.

The longer story . . .

By October 1, significant Blaster containment measures had taken place and were providing some relief, but Kronos, MInE, Student Health Services, Career Services, and logins for myMiami, BannerWeb and Blackboard continued to perform poorly. Resolving these problems was the top priority for Miami network technicians and technical specialists. Servers, network appliances and firewalls were scrutinized, rebooted, and re-examined.

Our efforts were continually aggravated by Blaster – its name is apt, as it blasts traffic onto the network at a rate that has never been seen before. (Before Blaster, our firewall received 250,000 probes a day; by the end of August, after Blaster was widely distributed, the firewall was being probed as many as \textbf{40,000,000} times a day.) As we tried to “listen” to our network equipment, we had to filter out the traffic being generated by Blaster-infected machines. An analogy can be made to conversations attempted in a large room. Before the room is crowded, two people can speak to each other quite clearly from across the room. As the room fills with hundreds of people speaking loudly, understanding what someone is saying from a few feet away is difficult – understanding a conversation taking place across the room is impossible. We had a piece of equipment trying to be heard in a room full of loud voices - it takes a while to move through the room and find the voice that needs attention.

Realizing that second semester registration was imminent and we were unlikely to further contain Blaster in the short term, we elected to bring in outside help. Two network engineers were brought to campus to supplement the efforts of our own engineers. After several days’ intensive study and with almost constant phone support from our vendors, we discovered a subtle fail-over configuration setting in the hardware supporting our administrative servers. The setting worked well before Blaster; in the presence of Blaster it needed to be changed. Changing it dramatically improved network performance and services were restored to a robust state on October 15.

\textbf{Note:} Student Health Services’ service degradation had symptoms similar to other services, but the symptoms were much more severe. After extensive study, it was determined that the underlying cause of their problem was faulty server hardware. The Blaster traffic was aggravating their problems, but not causing them.

They say there is no going back. That seems to be true for computer infections. Our networking equipment effectively aged a couple years in the middle of August 2003. Blaster is here to stay; one infected Windows machine can generate enough traffic to disrupt service to many others. New Windows vulnerabilities are announced regularly; despite a number of Blaster-related arrests, programs exploiting those weaknesses are sure to follow. We are beginning a project to manage all workstations connected to MUnet – this will result in better protection for both workstations and Miami’s network.
Appletalk and IPX Protocols being Phased Out from Miami's Network

In order to increase the efficiency of Miami’s network (MUnet), improve security and to provide better support, IT Services is beginning the process of reducing the protocols carried on MUnet at the end of this semester (December 2003).

Currently, the network supports three protocols – IP, Appletalk, and IPX. IP service will remain while Appletalk and IPX will be discontinued. Appletalk is primarily used for Macintosh computers to communicate with each other. IPX is primarily used by the Novell network. The network services available via IPX and Appletalk are now available over TCP/IP except for very old peripherals, such as the original LaserWriter.

Over the semester break, IT Services will configure network service for residence halls to discontinue these two redundant protocols. When residence hall students return for second semester in January, 2004, Appletalk and IPX will work only within each local network (subnet). The protocols will not be routed across subnets.

We expect that most users should not notice this change. Most computers do not have either of these protocols enabled. There is, however, one area where we anticipate that some people may experience problems caused by this change. Windows users who installed the Novell client (that provides the Novell login when the computer starts up) prior to Fall of 2002 (and has not since upgraded it) may experience problems logging in. We recommend you install the latest version of the Novell client by downloading it from http://software.muohio.edu/

We are making this change to improve MUnet in the following ways:

1. Improve network efficiency by removing unnecessary "overhead" traffic inherent in Appletalk and IPX protocols.
2. Improve network security by reducing the scope of attack over IPX and Appletalk protocols.
3. Improve network stability and availability of MUnet Residential Networks. As worldwide use of these protocols diminishes, router vendors spend much less time maintaining code and troubleshooting problems. The latest round of Microsoft Windows Operating System vulnerabilities places enormous strain on our routers. Running "lean and mean" reduces the impact of such events.

Oracle (Banner) Password to be Changed Every 90 Days

The SCT Banner system contains information about all students, faculty and staff. This information is considered highly confidential. The SCT Banner system and many other applications are secured by an Oracle password.

Unlike the MUnet password that protects your personal data/information in your computer accounts, your Oracle password protects personal information about all of our University clients. Because of the very sensitive nature of your Oracle password, the University Auditor and the Miami University Security team have determined that Oracle passwords should be changed every 90 days. Around January 20, 2004, you will be notified that your Oracle password is about to expire.

IT Services staff has developed a utility to help you maintain your Oracle Password. When you are notified of the expiration of your password, you will be given a link to the Oracle Password Utility. To help you maintain your password, we strongly recommend you set an Oracle Question/Answer pair. This Question/Answer pair can be used to change your Oracle password if you forget it and reactivate locked passwords.
Oracle (Banner) Password to be Changed Every 90 Days (continued)

If you have a computer account that is secured by an Oracle password, you will receive further information by e-mail. If you have any questions or concerns, please call the Support Desk (529-7900) and press #2, then #1 for Administrative Support.

Protect Your Wireless Connection: Use Virtual Private Networking (VPN)

The convenience of wireless computing needs to be balanced against the security risks that wireless technology introduces. An ever-increasing number of people are using wireless to connect to Miami’s network (MUnet) and to share Internet connections at home. While wireless technology is very convenient, the nature of radio waves is that they are transmitted in many directions. This allows individuals, ranging from the curious to the nefarious, to easily listen in on wireless network activity.

Some network services transmit data in plain text, allowing people to successfully snoop on the wireless network. Passwords, social security numbers, or other confidential information can be easily harvested from these transmissions. Some services, such as a secure web site, encrypt (scramble, encode) the data before sending it. However, there are heavily used services, such as e-mail, that send passwords and data in an easily readable form.

To help protect the privacy and integrity of user accounts, IT Services provides a service called MUnet Encrypted (ME) using Virtual Private Networking (VPN) software. Use of this technology allows for all on-campus traffic, or Miami-bound off-campus traffic, to be encrypted. This protects the data and passwords of all Miami network services from wireless eavesdropping. **Important:** please note that off-campus use of VPN only protects data sent between your computer and Miami servers/systems – it does not protect communications with other sites on the Internet.

The VPN software can be obtained from Miami's Software Download web page at [http://software.muohio.edu/](http://software.muohio.edu/). After installing the software and starting the VPN client, two things must be done. First, the proper configuration must be selected based on the computer’s location. The "OnCampusProtectAll" configuration should be used when on-campus, and the "OffCampusProtectMU" configuration should be used when off-campus. Second, a VPN user must authenticate with his or her Miami UniqueID and MUnet password.

An overview and details on installing and using the VPN software can be found in the Miami University Knowledge Base: [VPN Information in the Knowledge Base](#)

Note: Starting second semester 2003-2004, you will need to sign in via a web page to get wireless service when connecting to MUnet. Please see the related [TechTalk article](#) for details.
Sign-in for Wireless Access to MUnet (WAM) Soon to be Required in Academic & Administrative Buildings

WAM is a system that helps secure Miami’s network (MUnet) by requiring a sign-on with a valid Miami Unique ID and MUnet password in order to obtain wireless network service.

WAM has been in place in the IT Services areas of Hoyt Hall and Gaskill Hall since the beginning of the 2003-2004 academic year. In mid-October, it was rolled out to King Library and will be deployed with all new wireless networks. Existing wireless networks in academic and administrative buildings will be converted to WAM in January, 2004.

IT Services does not provide wireless access to the residence halls at this time.

Please note the following aspects of WAM:

1. To gain network service when connecting to an MUnet wireless network with WAM, you must first open a web browser. When your browser opens, you will be directed to the WAM web page.

2. Guests without a Miami UniqueID and password may use MUnet wireless networks by providing a valid e-mail address at the WAM WWW page. Guest access will be limited to web-browsing services at a lower network data rate.

3. WAM does not encrypt your wireless network communications. To prevent wireless network eavesdropping, you must use Virtual Private Network (VPN) technology. For details, see the related TechTalk article or the VPN information in the Knowledge Base. We strongly recommend that you use VPN technology when using a wireless connection so that the data sent via the wireless connection is encrypted.

Video Production Department Brings Campus into Focus

IT Services video producer Craig Rouse really gets around. You might find him anywhere on Miami’s three campuses creating original video productions for everything from individual classroom support to features airing on ESPN and FOX Sports during televised Miami football games. Craig prides himself on delivering more than his clients expect, often taking an idea that a faculty member brings him and creating a video product that wins awards.

The Office of Intercollegiate Athletics (ICA) recently added a large video board to Yager Stadium. In addition to running “instant replay” style game footage, this Redhawk “jumbotron” airs a variety of promotional and feature-style pieces created by Craig. Ads for Miami Concessions, a public service announcement on sportsmanship, highlights from previous games, features on individual Redhawk players and university features are all created by Craig for this new technology.

ICA is currently one of Craig’s biggest clients. Producing half-time features that run on ESPN and FOX Sports during televised Miami football games and MAC sports previews for football and basketball keeps Craig busy shooting and editing to meet broadcast deadlines. Additionally, Craig produced all of the broadcast commercials for football and basketball that air on various cable and broadcast outlets in the tri-state area.
Video Production Department Brings Campus into Focus (continued)

Having an outstanding quarterback has also brought Craig’s work into the spotlight. Ben Roethlisberger, Redhawk quarterback, was the subject of a video Craig created for NFL Films. Additionally, Rouse tapes a weekly interview with Coach Terry Hoeppner that he edits and distributes to regional TV stations for airing.

But Craig’s work is not all sports-related. While the Redhawks consume much of his time, Rouse truly serves the entire University community. Working with the Women’s Center, he shot and edited a video titled “You are Not Alone,” designed to provide support and education for victims of sexual assault. This video is just one of many that Craig has produced for offices and departments across the university.

Directly related to classroom instruction, Craig has worked with a wide range of talent, from student teachers to monkeys. “Learning to Teach in a Partnership School” had Craig traveling to Cincinnati with education students as they completed their student teaching assignments illustrating the experience of the student teacher, supervising faculty and home teacher. Craig also produced an award-winning video for the anthropology department featuring Linda Marchant’s (Anthropology) field research with primates.

In the face of changes in policy following September 11, 2001, water treatment plants can no longer offer tours to interested parties. To provide the experience, while maintaining required security, Craig videotaped a mock tour at the Oxford water treatment plant. A somewhat sweeter-smelling assignment took Craig to the Culinary Support Center where he taped a promotion for the Miami Bakery.

Training videos for Housing, Dining, and Guest Services and Physical Facilities are also a staple of Craig’s schedule. From how to set a table to orientation to driving a 15-passenger van, Craig’s work is viewed by fellow Miamians every day.

Providing effective communication is what Craig Rouse does best. “I like to give the client more than they expect,” is Craig’s motto. When asked about his favorite projects, he mentions two recruitment videos, one for football and one for the nursing program. What he points to, in both cases, is the fact that his client was happy and that the tapes provided good, effective communication tools.

If you have a video project, contact Craig Rouse at 529-6013 to explore the possibilities.

IT Services Gaskill Hosts Successful Open House

On Thursday, October 30, the IT Services units housed in Gaskill Hall hosted an open house to promote our services. Invitations were sent to clerical and administrative staff, as well as to graduate assistants. These individuals were invited so that they could become ambassadors for IT Services in their home departments, sharing news of the services available.

Approximately 150 staff, faculty and graduate students attended the event, representing all three campuses. Attendees were treated to food and beverages and entered their names in a drawing for a digital camera. Karel Simbartl of the Office of Development was excited to have his name drawn as winner of the camera, and commented on the breadth of services he learned about as part of the open house.

In the Print Center, guests were treated to the chance to go behind the counter and see the high-speed digital copiers used to print everything from class handouts to university business cards and full-color posters. The Print Center’s new variable printing capability was demonstrated, showing how mailings and other printed materials can be personalized with text and images to create unique marketing pieces.

Graphics/Video/Photo Services displayed a wide variety of work created for campus clients. Video produced for clients such as Orientation, Housing, Dining and Guest Services, and Intercollegiate Athletics was shown. Samples of web design prepared for university departments and offices were on display, along with posters, flyers, brochures and other print pieces designed by the graphic design staff. Several guests also took the opportunity to have their portrait taken by staff photographers. A free 5x7 print was sent to each staff member taking advantage of this “sample” service.
IT Services Gaskill Hosts Successful Open House (continued)

AREA 351 (Advanced Resources for Educational Applications) welcomed staff, faculty and graduate students, demonstrating Blackboard and the variety of other technology services available for support of instruction. Especially popular was the New Faculty CD that was created this year.

Support Services also participated, giving attendees a chance to visit the Support Desk, the source of phone, e-mail, and walk-in support for technology issues, and to learn more about online services including the Knowledge Base, web-based training modules, and TechTalk.

The strong positive response received from those who attended has prompted the members of the Academic Technology Services unit to add the open house as an annual event. We believe that through a little fun and food our ability to serve our clients will continue to be enhanced. We hope to see you at the open house next year!

Top Picks and New Content in the Knowledge Base

Want to know what the hot technology questions/topics on campus are? Knowledge Base traffic provides a great clue. Following are the most frequently viewed Knowledge Base cases in the past two months as well as a sampling of new cases that have been added recently.

Important Note: We’re certain the cases at the top of the hit list won’t come as any surprise in light of the attention Windows vulnerabilities and viruses/worms that exploit them have received this year. If you are using Windows 2000 or XP and haven’t already taken steps to protect your computer, please check out the cases in bold!

Knowledge Base Top 15 Hits

- Protect your computer: new vulnerabilities announced for Microsoft Windows and Microsoft Office
- Protecting your Windows computer from the Blaster and Welchia Worms (DCOM RPC exploit)
- Installing McAfee Virus Scan Enterprise 7.0 (Windows 2000/XP)
- Using Microsoft Windows Update to get updates, patches and drivers
- Publishing web pages using your Universal Disk Space (UDS)
- Obtaining Microsoft Office 2000/XP Updates
- Changing mail server settings in Eudora Pro (Windows and Macintosh)
- Using your Miami e-mail account
- Setting up Eudora for another person to check e-mail on your computer (Windows)
- Converting Eudora Address Books to Pine
- Checking more than one e-mail account with Eudora 5.x (Windows)
- Installing McAfee VirusScan 4.51 SP1 (Windows 98/ME)
- Creating a new Eudora setup for another user on your computer (Mac OS)
- Creating an Auto Reply Filter in Eudora (Windows)
- Moving Eudora Files (Windows)
Top Picks and New Content in the Knowledge Base (continued)

Sampling of New Cases in the Knowledge Base

- Entering final grades into BannerWeb
- Viewing and printing a class roster
- Checking the balance or adding money to your MUlaa account
- Resources for Copyright laws
- Accessing Departmental/Divisional File Space from Mac OS X via Native File Access (NFAP)

Check out the Knowledge Base . . .

As you can see, people are finding answers to a wide variety of questions in the Knowledge Base and content is being continually added. Next time you have a technology or general service question, please visit the Knowledge Base at http://kb.muohio.edu (from myMiami, click “Knowledge Base” under Quick Links on the right side of the page).

Looking for information in the Knowledge Base and not finding it?

If you can't find what you need in the Knowledge Base, please let us know!

- If you need immediate help, please use the "Contact the Support Desk" button.
- If you are suggesting general topics for coverage, please use the "Send Us Your Comments" button.

Gartner Research

Examples of new Gartner research articles are available from Miami's web site to all Miami students, faculty, and staff, and are listed below. You will be prompted to login using your UniqueID and MUnet password.

Gartner research will be of particular interest to any student, faculty, or staff member learning, teaching or using technology. Areas of focus for Gartner research include E-Learning, Business Management of IT, Security and Privacy, Higher Education, and Emerging Trends and Technology. The web site is updated every Friday with new research articles.

How Emerging Technologies Will Transform Industries

[14-OCT-2003 • Letter From the Editor • Linden, Alexander]

Different industries are using new technology in distinctly different ways. Gartner examines the emerging trends in the banking, insurance, pharmaceutical, healthcare, retail and government sectors.

New Trends and Technologies Will Transform Your Industry

[13-OCT-2003 • Article Top View • Fenn, Jackie]

Planners must be aware of changes specific to their sectors, and those with wider cross-industry impact. Wireless access and better tools for business process management and data analysis are key technology-based trends.
Emerging Trends and Technologies in Government
[26-SEP-2003 • Commentary • Kreizman, Gregg; Baum, Christopher H.; Fenn, Jackie; Kost, John; Di Maio, Andrea; Rust, Bill; McDonald, Mark P.]
An increasingly connected constituent base will drive technology trends in government. Different sets of constant and cyclical disruptive forces will spur and confound emerging technology adoption.

Client Issues for Higher Education
[21-OCT-2003 • Letter From the Editor • Yanosky, Ron]
The growing reach of IT into all facets of campus life has opened up new areas of concern, along with exciting new opportunities.

Client Issues: Higher-Education Applications and Beyond
[13-OCT-2003 • Research Note • Yanosky, Ron; Harris, Marti; Zastrocky, Michael]
As higher education's administrative and academic IT needs converge, our Client Issues focus on the changing skill set for managing enterprise applications and infrastructure.

Client Issues: Higher-Education Management
[13-OCT-2003 • Research Note • Zastrocky, Michael; Harris, Marti; Yanosky, Ron]
Higher-education leaders are turning to management and governance to meet growing IT demands without adding significant resources. Our Client Issues explore how management can navigate these constraints.

Client Issues: Higher-Ed Learning and Intellectual Assets
[15-OCT-2003 • Research Note • Harris, Marti; Yanosky, Ron; Zastrocky, Michael]
Finding the "next" instructional technology is an endless task. Planning requires information gathering, as well as bringing together academic and administrative decision makers to develop a learner-centered environment.

Client Issues for IT Leadership
[09-OCT-2003 • Research Note • Mingay, Simon; Adams, Christine; Morello, Diane; Bell, Michael; Flint, David; Cox, Roger Arthur; Gerrard, Michael; Yamanoi, Satoshi; Fulton, Roger; Mahoney, John]
The role of IT leaders is changing fast, and new responsibilities are emerging in the area of business transformation. Gartner outlines clients' main concerns, which will inspire its research for the next 12 months.
Did you know . . .

Technology tidbits for Miami faculty, staff and students:


- **Note:** Miami’s current Microsoft agreement expires on June 30, 2004. While Miami is negotiating a new agreement, the prices will be considerably higher.

- Every student and faculty or staff member has an account on UNIXGen, Miami’s UNIX system, with 50MB of disk space and an Oracle database account. You can use this space to host web pages (particularly those with scripts not written in PHP), store files, etc. By request, a ColdFusion Data Source Name will be created for your Oracle database account. [View details in the Knowledge Base](#)

- You can grant others rights to some or all of your Universal Disk Space (the 50MB of Novell file space Miami provides to all faculty, staff and students) using NetDisk through myMiami. [View details in the Knowledge Base](#)

- You can connect to Universal Disk Space from a Mac OS X computer without a Novell client. [View details in the Knowledge Base](#)

- You can access more than 300 web-based training courses on desktop applications, technical topics, and personal and business skills. Visit [http://www.muohio.edu/training](http://www.muohio.edu/training) and click web-based training for more information.

- Miami students can borrow wireless-enabled laptops for up to 2 hours at a time from the Information Desk at Shriver Center. [View details in the Knowledge Base](#)

- Miami faculty and staff can borrow laptops for several hours to several days from Media Services and Area 351 in Gaskill. [View details in the Knowledge Base](#)

- Miami faculty and staff who need to make university business calls when away from campus can obtain a Qwest calling card from Telecommunications so calls can be charged directly to a department/grant account. [View details in the Knowledge Base](#)