Benchmarks Online

Volume 8 - Number 7 * July 2005

Columns

- NetworkConnection
- Link of the Month
- IRC News
- RSS Matters
- www@unt.edu
- Short Courses
- Staff Activities

Don't forget our monthly Columns!

About Benchmarks

Search Archive

Subscribe to Benchmarks

Campus Computing News

The CITC Town Meeting

EIS Status Report

UNT Data Encryption Recommendations

Coming this Fall: GroupWise 7

Importing a GroupWise Address Book into Apple's Address Book Program

Summer Hours

TODAY'S CARTOON

[Return to top](#)

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Site was last updated or revised : February 12, 2007

Benchmarks Online, July 2005, Page 1.

Benchmarks online

Campus Computing News

The CITC Town Meeting

By Claudia Lynch, *Benchmarks Online* **Editor**

Once a year or so the Computing and Information Technology Center (CITC) administration likes to call a "town hall meeting." The purpose is to get all the CITC staff together and bring everyone up to date on what is going on in the various areas of the Center. Our most recent meeting was held July 12th at the UNT Research Park.

Of interest, perhaps, to the UNT community outside of CITC is the re-organization of the Administration Information Systems (AIS) group. The impetus for this re-organization was the upcoming August retirement of Coy Hoggard, Executive Director of Administrative Information Systems, and the appointment of John Hooper to that position. Following is the new AIS organization chart:
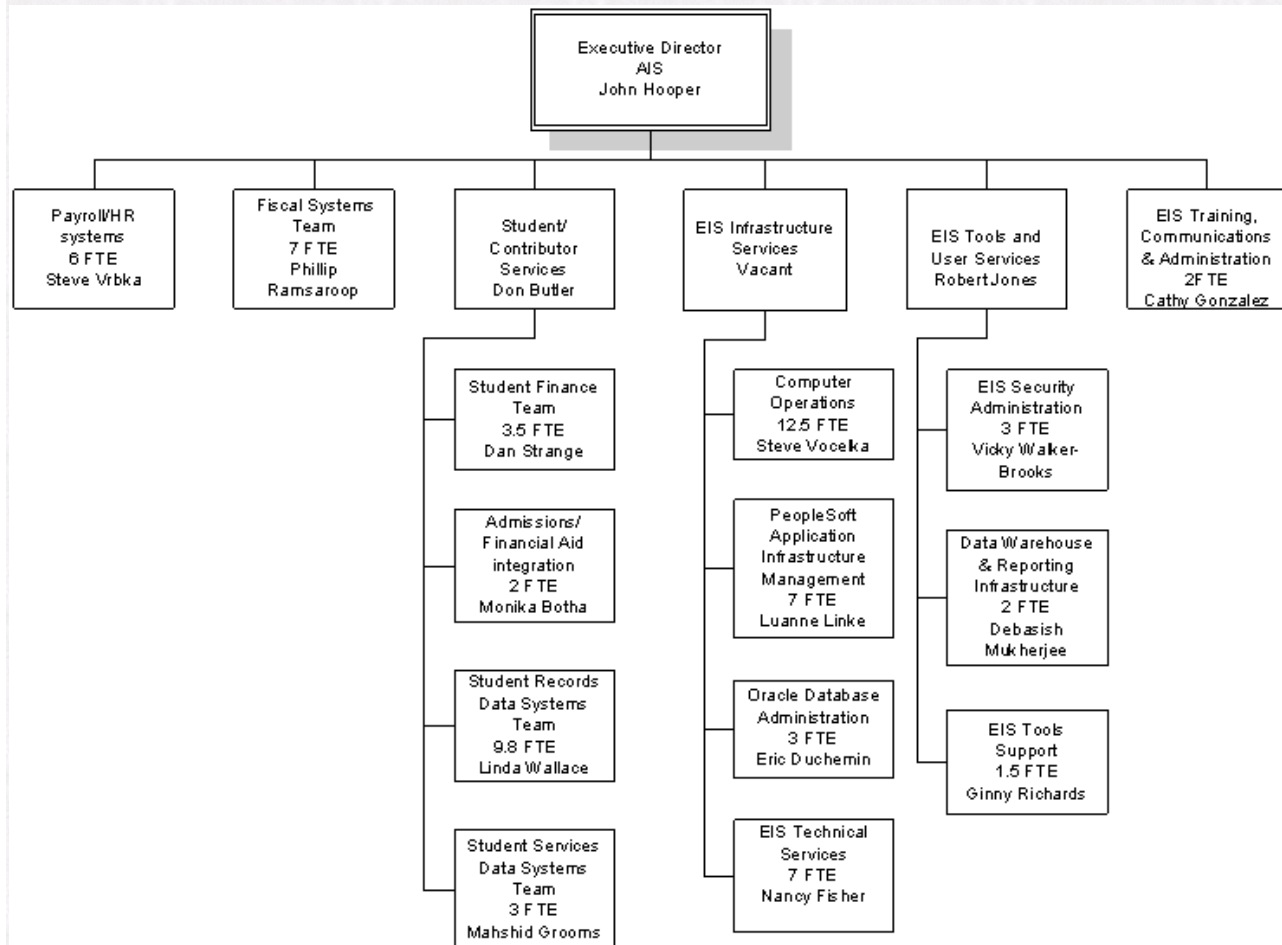
For more information about the CITC's organization, visit our webpage at
 http://www.unt.edu/ccadmin/about.htm .

Benchmarks Online

EIS Status Report

By **Cathy Gonzalez**, **EIS Training, Communication, and Administration Manager, CITC**

Benefits of enterprise system are acknowledged by the University community

The implementation period and first year of using a new system are challenges that seem almost insurmountable at times. Often technical and functional project members ask themselves "When will the fruits of our efforts be seen?" The UNTS community has patiently waited for EIS, the new enterprise system that replaced the administrative mainframe, to come of age. While there are still technical challenges from time to time, for the most part EIS has proven to be a success. Recent praise from a functional user was summed up by saying, "Our office loves EIS." Specific praise was given for purchasing tasks running smoother, easier tracking of payroll and leave balances, more detailed student records, and tighter security for students and employees by non-disclosure of Social Security numbers or dates of birth. The desire of all persons directly working with the project is that the system be of value to the community as a whole. Hearing this goal is being met makes all the hard work worth the sweat and tears!

Human Resources continues EIS accomplishments

Nelda Evarts, Interim Director for Human Resources (HR), recently reported some of the key HR accomplishments for this fiscal year that pertain to EIS. The Staff Performance Review notices sent out weekly to supervisors are now generated from EIS data. In the Spring of 2005, performance review tracking in EIS was initiated. Cypress distribution of reporting for departmental ID holders and delegates has progressed to the point it permits monthly reporting of payroll actual data. Other reports relating to Human Resource functions are projected to go into production in the near future. Additionally, a group of key management reporting capabilities requested by Finance, Business, and Internal Audit departments has been implemented.

Office of Enrollment Management counts EIS successes

Joneel Harris, EIS Co-Project Director and Associate Vice-President for Enrollment Management, comments "It is good news that we are managing the single summer term with multiple sessions." Many other successes are indirectly associated with EIS in the student administration areas, such as the implementation of external and internal SFAS call centers, the Course Applicability System (CAS), and Hershey's OCR transcript processing system that will soon be in production.

EIS Training going strong

In the current fiscal year, the training effort for EIS has continued significantly at the Denton and HSC campuses. A total of 101 training events have been held with a total of 488 employees attending training. The most prevalent topics have been Human Resource

Timekeeper and eProcurement classes. Additional instructor-led topics included PSQuery/Crystal Reports, Introduction to RDS, FirstLogic, and topics relating to Contributor Relations. Various classes have also been held to assist application development staff with their programming assignments. A new WebCT Vista course for faculty was launched that covers the topics of managing class rosters and grade reporting. Questions or comments relating to EIS training should be sent to the EISTRN GroupWise account.

[Return to top](#)

Benchmarks Online

Page One

Campus
 Computing News

EIS Status Report

UNT Data
Encryption
Recommendations

Coming this Fall:
 GroupWise 7

Importing a
 GroupWise
 Address Book
 into Apple's
 Address Book
 Program

Summer Hours

Today's Cartoon

RSS Matters

The Network
 Connection

Link of the Month

WWW@UNT.EDU

Short Courses

IRC News

Staff Activities

Subscribe to
 Benchmarks
 Online

UNT Data Encryption Recommendations

By Howard Draper, Information Security Analyst

Introduction to UNT Data Encryption Recommendations

News reports of identity theft and sensitive data loss are becoming all too common. As recently as June, a Kent State University employee's laptop with over one thousand faculty Social Security Numbers was stolen from a car in a department store parking lot. Also in June, University of Connecticut discovered that a server containing 72,000 student, faculty, and staff records had been hacked since 2003. On July 7th, University of Southern California announced that a programming error in their online application system allowed potential disclosure of 320,000 users' personal information.

Strong password requirements go a long way to thwart hacking attempts, but all passwords can be cracked over enough time. Encryption of sensitive data provides an extremely helpful layer of security.

According to UNT Information Security Policy 3.6,"Encryption techniques for storage and transmission of information shall be used based on documented agency security risk management decisions." Justification for encryption should always be preceded by another question, "Is it absolutely necessary for this sensitive data to be stored here." The most effective theft deterrent in any situation is to remove the items of enticement; "what doesn't exist can't be stolen." In the case of UNT laptop computers, this topic is of utmost importance. If a UNT laptop computer is lost or stolen, given a low chance of recovery, UNT would have to assume responsibility for the compromise of all information stored on the stolen laptop.

UNT has a significant number of computer users who access data remotely, carry laptops, and deal with sensitive data. When using unfamiliar non-UNT networks, accessing data remotely, and using wireless internet access, risk of security incidence is much higher than an on-campus UNT-managed computer. In short, data encryption is highly recommended and perhaps should be required in many cases. An ounce of prevention is worth a pound of cure.

Scope of Coverage

Encryption can be used on every popular operating system, but in the case of UNT, Microsoft Windows and Macintosh OS X are most common, and therefore these operating systems are the context for these encryption recommendations.

Entire hard disks need not be encrypted; the System Administrators can specify how much or how little data they wish to encrypt. Typically, the home directory is a likely target for encryption, as are any folders which contain sensitive data. Integration of native Windows and Macintosh encryption is transparent, and there is no perceivable increase in lag when encryption is used. The encryption/decryption key is associated with specific user accounts,

which means that the initial login authentication is all that's necessary for users to access their encrypted documents.

All UNT laptops should use encryption to protect sensitive data. Because encryption implementation is simple, encryption of data on desktop computers is also highly recommended, particularly those computers used in any capacity to manage sensitive data.

Remote communications and remote data access should also use encryption protocols. Users should never access campus computing resources via unencrypted connections. Unencrypted transmission of data over any network connection (including wireless) can be intercepted and examined quite easily.

Specific Implementation Areas

Microsoft Windows

A high percentage of UNT computers use Microsoft Windows 2000 and 2000 Server, which having reached their End-of-Life cycles, are not ideal for continued use with encryption implementation. UNT Information Security recommends upgrading all Windows computers to Windows XP or Windows 2003 Server (depending on the need), both of which feature significant security improvements over Windows 2000 and 2000 Server.

Windows XP and 2003 Server both provide native 128-bit encryption, which can be applied to folders manually. When used in conjunction with Active Directory, System Administrators can serve as recovery agents in case users lose ability to view encrypted documents. The NTFS hard drive filesytem is required since FAT32 does not support the native Windows encryption.

Manually encrypting a folder in Windows XP/Server 2003 is quite simple. Per the Microsoft Instructions (*http://support.microsoft.com/default.aspx?scid=kb;en-us;308989&sd=tech*), the user can simply right-click on a folder or file, click the "advanced" tab in the "general tab", and select the "Encrypt contents to secure data check box."

Macintosh OS X

Macintosh OS X provides native encryption called "File Vault," which uses 128-bit encryption. File Vault encrypts the contents of a user's home directory, in which sensitive data should be stored. File Vault is extremely simple and very easy to use: The Apple official instructions (found at http://www.apple.com/macosx/features/filevault/) show that the user need only open System Preferences, click on Security, and click on "Turn On File Vault."

Third Party Encryption Software

There are many alternatives to native Operating System encryption, two popular options being PGP (Pretty Good Privacy) and GPG (Gnu Privacy Guard). PGP-style encryption is used to both authenticate communication and protect stored data. It is commonly used to encrypt email, most of which has no inherent security during transmission. The Gnu PGP version is an open source version of the commercial PGP offerings. Both versions are supported for most common Operating System platforms.

Removable Data Storage Devices

As popularity of USB flash drives data storage increases, potential buyers should be aware that secure flash drives are available which use 256-bit encryption to protect the contents.

Users can also use free software like Truecrypt to encrypt contents of USB flash drives.

Macintosh OS X users can also create encrypted disk images to store encrypted data on USB flash drives.

Remote Access Encryption

We strongly recommend that users needing remote access to campus computers use a secure remote access method. We recommend the (free and secure) Microsoft Remote Desktop client for remotely accessing Windows computers. Apple offers a similar remote access program which can be purchased.

The Microsoft Remote Desktop client utilizes secure technology licensed from Citrix. It is the strongest and most effective remote access method which we recommend for use with Microsoft Windows.

Wireless Network Encryption

All employees who use wireless network connections should be wary of sending any sensitive data (including passwords) over unencrypted wireless networks. Microsoft Windows XP and Mac OS X both provide simple indicators of whether or not a wireless network is secure. System Administrators can very quickly show a user how to determine if a wireless network is encrypted.

Unencrypted wireless networks offer no protection for any data sent through it. Most communications can be easily intercepted and read. It is worth noting that WEP encryption is outdated and easily defeated, making it a weak encryption protocol to rely on. WPA is a recommended alternative, given its stronger resistance to compromise.

When a secure remote access protocol is used (like the Microsoft Remote Access client), the communication is encrypted from end-to-end, meaning all data passed between the two computers, even when over an unencrypted network, is still protected by use of the secure remote access protocol.

[Return to top](#)

Benchmarks Online

Page One

Campus Computing News

EIS Status Report

UNT Data Encryption Recommendations

Coming this Fall: GroupWise 7

Importing a GroupWise Address Book into Apple's Address Book Program

Summer Hours

Today's Cartoon

RSS Matters

The Network Connection

Link of the Month

WWW@UNT.EDU

Short Courses

IRC News

Staff Activities

Subscribe to Benchmarks _Online_

Coming this Fall: GroupWise 7

By **Jason Gutierrez**, Network Computing Services, GroupWise Messaging Specialist

The folks at Novell have spent a lot of time and effort to bring you an even more robust and feature rich messaging system. Currently, Network Computing Services is testing the public beta for GroupWise 7 with much success, and anticipates no problems with deploying this update to the UNT computing community this fall. Below is a list of some of the features that you can expect from GroupWise 7.

- **Macintosh OSX and Linux Clients with spell checking, junk mail handling, archiving and more...**

- **Redesigned look and feel.**

- **New navigation bar* allows users to quickly switch between areas of GroupWise**

- **Calendar addition and removal***

- **Simultaneous calendar view option***

- **All-day and multi-day appointments***

- **WebAccess,** _including wireless license_ **and near feature parity with Windows Client***

- **PDA cradle synchronization***

- **Novell Evolution client support***

- **Microsoft Outlook support (includes support for e-mail, tasks, notes, calendaring, busy search, shared folders, today view,**

- **ActiveSync, .pst files, offline mode, delegated support, signatures and personal and system address books)***
- **Support for GroupWise on NetWare®, Windows* and Linux* servers (both SUSE™ LINUX Enterprise Server and Red Hat*)**

More information and screen shots can be found online at:
http://www.novell.com/products/groupwise/newrelease.html

Meanwhile, check out the GroupWise 6.5 Tutorials

A list of GroupWise 6.5 "Tutorial Topics" can be found here:
http://ncs.unt.edu/gw/howto/index.htm

Coming this Fall: GroupWise 7

Benchmarks Online

Importing a GroupWise Address Book into Apple's Address Book Program

By **Jason Gutierrez**, **Network Computing Services, GroupWise Messaging Specialist**

Importing a GroupWise Address Book into Apple's Address Book program is a simple task to accomplish, but you'll need to use the GroupWise client on the PC to do it. The GroupWise 6.5 client is available for download here http://ncs.unt.edu/gw/download/ (EUID authentication required).

Export the Address Book

1. Launch the GroupWise client on a PC
2. Open the Address Book program.
3. Select the Address Book you would like to export
   a. Frequent Contacts
   b. Personal Book
   c. Not the Novell GroupWise Book or the LDAP book
4. From the "File" menu select "Export…"
5. Select Entire book from the dialog box that appears
   a. You can choose to click on specific address to export as opposed to exporting the whole book. Make your selections before choosing "Export…" from the "File" menu.
6. Name the *.vcf file and save.

Importing the VCF file

1. Copy the *.vcf file you just created in Step 6, to the Macintosh (running OS X).
2. Launch Apple's Address Book program.
3. Create a new Group in the address book, preferably one with the same name (e.g. Frequent contacts, Personal Addresses).
4. With the newly created group selected, select "Import" and then "vCard" from the "File" menu.
   a. You may also use the "⌘+ i" keystroke
   b. You may also drag the *.vcf file into the "Name" pane for the Group.

   (Note: If you drag the VCF card into the "Group" pane, the addresses will be imported, but not into any specific group. The addresses will appear in the "All" book.

5. Select your *.vcf file.

Apple's address book application will now import all the addresses from the VCF card into the group you created.

Benchmarks Online

Summer Hours

By **Claudia Lynch, Benchmarks Online Editor**

Following are the hours for Computing Center-managed facilities over the summer:

- The **Helpdesk** , is planning on being **open their normal hours** this summer.

- The **ACS General Access/Adaptive Lab** (ISB 110) schedule:

  Monday, May 16 - Friday, August 12:
  Sundays: 2:00 p.m. - 10:00 p.m.
  Monday - Thursdays: 9:00 a.m. - 10:00 p.m.
  Fridays: 9:00 a.m. - 8:00 p.m.
  Saturdays: 10:00 a.m. - 8:00 p.m.

Hours for Other Campus Facilities

General Access Labs

- WILLIS:

  June 3-5:
  Friday, June 3 8:00 a.m. - 2:00 p.m.
  Saturday, June 4 9:00 a.m. - 5:50 p.m.
  Sunday, June 5 1:00 p.m. - **Resume 24hr schedule** until August 11, when hours will be reduced to a level not yet determined.

- SLIS:

  Starting Monday, May 16:
  Monday - Thursday, 10:00a.m. - 2:00 a.m.
  Friday and Saturday, 8:00 a.m. - 10:00 p.m.
  Sunday, Noon - Midnight.

- MUSIC:

  June 6 - August 12:
  Monday - Thursday: 8:00 a.m. - 9:00 p.m.
  Friday: 8:00 am - 5:00 p.m.
  Saturday: 10:00 am - 5:00 p.m.
  Sunday: 1:00 p.m. - 8:00 p.m.

- SCS & SMHM:

Special Closings:
August 13 - 28

May 16 - August 12:
Monday - Thursday 8:00 a.m. - 10:00 p.m.
Friday - Saturday 8:00 a.m. - 5:00 p.m.
Sunday, Noon - Midnight.

- [SOVA](#):

  Special Closings:
  August 13-28

  May 16 - August 12:
  Sunday - 1 p.m. - 10 p.m.
  Monday - 10 a.m. - 10 p.m.
  Tuesday - 10 a.m. - 10 p.m.
  Wednesday - 10 a.m. - 10 p.m.
  Thursday - 10 a.m. - 10 p.m.
  Friday - 10 a.m. - 5 p.m.
  Saturday - 10 a.m. - 5 p.m.

- [COE](#):

  May 16 - August 12:
  Normal hours.

- [COBA](#):

  Special Closings:
  August 13-26
  August 28

  May 16 - August 11:
  Monday - Thursday: 8:00 a.m. - 11:50 p.m.
  Friday & Saturday: 8:00 a.m. - 7:50 p.m.
  Sunday: Noon - 11:50 p.m.

  August 12, 2005 :
  8 a.m. - 4 p.m.

- [CAS](#):

  GAB 330:

  Special Closings:
  August 13-28

  June 6 - August 12:
  Monday - Thursday: 8 a.m. - Midnight
  Friday: 8 a.m. - 5 p.m.
  Saturday: Noon - 8 p.m.
  Sunday: Noon - Midnight

GAB 550:

Special Closings:
August 13 - 28

June 6 - August 12:
Monday - Thursday: 8 a.m. - 5 p.m.
Friday: 8 a.m. - 5 p.m.
Saturday: **Closed**
Sunday: **Closed**

Terrill 220:

Special Closings:
August 13 - 28

June 6 - August 12:
Monday - Thursday: 8 a.m. - 8 p.m.
Friday: 8 a.m. - 5 p.m.
Saturday: **Closed**
Sunday: **Closed**

Wooten 120:

Special Closings
August 13 - 28

June 6 - August 12:
Monday - Thursday: 8 a.m. - 10 p.m.
Friday: 8 a.m. - 5 p.m.
Saturday: **Closed**
Sunday: **Closed**

- **UNT Dallas Campus- 155A**

  Special Closings:
   August 13
   August 20

  May 16 - August 12:
   Monday-Thursday: 8 a.m. - 10:00 p.m.
   Friday: 8 a.m. - 6 p.m.
   Saturday: 9 a.m. - 5 p.m.
   Closed on Sundays

   August 15 - 26 - open 9:00 a.m. - 6:00 p.m.

- **Engineering General Access Lab (englab@unt.edu, Research Park, B129, 891-6733)**

  Monday through Thursday from 9 a.m. - 5 p.m. (subject to change).

Summer Hours

Benchmarks online

Page One

Campus Computing News

EIS Status Report

UNT Data Encryption Recommendations

Coming this Fall: GroupWise 7

Importing a GroupWise Address Book into Apple's Address Book Program

Summer Hours

Today's Cartoon

RSS Matters

The Network Connection

Link of the Month

WWW@UNT.EDU

Short Courses

IRC News

Staff Activities

Subscribe to Benchmarks Online

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GLASBERGEN

"MY TERM PAPER HAS HYPERTEXT LINKS, FULL-SCREEN VIDEO CLIPS, ANIMATED FONTS, AND AWESOME 3D SPECIAL EFFECTS... NOW ALL I NEED IS A TOPIC."

From "Today's Cartoon by Randy Glasbergen", posted with special permission. For many more cartoons, please visit www.glasbergen.com.

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Return to top

Benchmarks Online

Network Connection

By **Dr. Philip Baczewski**, Director of Academic Computing and User Services

Dancing Indiscrete

I don't know if the RIAA and MPAA are dancing in the street, but they've had good news lately. In particular, the Supreme Court of the United States recently ruled apparently in their favor in the case of MGM versus Grokster. Against this landscape, the interest in online music purchases is higher than ever.

A Bad Day for Grokster

On June 27, 2005, the Supreme Court issued its ruling in the "Grokster Case." The original lawsuit listed Grokster, Ltd., and StreamCast Networks, Inc. as defendants and sought damages for copyright infringement based on the fact that the peer-to-peer software produced by both companies enabled people to download unpurchased copies of copyrighted materials. An appeals court had ruled that Grokster and StreamCast could not be held liable for copyright infringement because their software had significant "non-infringing" uses. This ruling invoked what known as the "Betamax case" or more formally as *Sony Inc. versus Universal City Studios*. In that case, the Supreme Court ruled that Sony could not be held liable for producing its Betamax video cassette recorders even though some people used it to make "illegal" copies of movies.

In the Grokster case, however, the court ruled that a company could be sued for infringement when their support for their product included the promotion of infringing activity as a way to increase business. They did not change any of the basis for the Betamax case, but rather said that the appeals court had misapplied it when it ruled that because Grokster and Morpheus software had substantial non-infringing uses, neither company could be held liable for copyright infringement. In other words, the Supreme Court did not find fault with peer-to-peer software, but rather noted that Grokster and StreamCast may have behaved badly.

The Grokster case is not over, however, since the Supreme Court's action was to send the case back to the lower courts for further argument. In other words, Grokster still has a chance to have their day in court, but MGM now has a valid argument with which to take them to court. But more importantly for the rest of us, the Betamax case was left in place and not overturned as MGM sought. This is at least a balanced decision and possibly a bit of a win for new technology.

A Good Day for Apple

It's ironic, then, that so close on the heels of the Grokster case, Apple Computer Inc. sold their 500,000,000th online song via it's iTunes Music Store. It would seem, that people will pay to download music and a recent report would support that contention. According to that

story from the [CBC](#) web site, "Paid music downloads through the internet have tripled in the U.S. in the first half of this year, compared to 2004 according to Nielsen SoundScan."

You'd think that such news would wake the RIAA and MPAA to the fact that licensing content can be as or more profitable than controlling the sales of media containing it. Perhaps this is the case according to an [article](#) in the Detroit News. It describes two peer-to-peer (P2P) software companies which have the blessing of record companies in the form of licensing deals. [Mashboxx](#) is in testing right now, while [Peer Impact](#) is up and running, providing $5.00 in free music when you download their P2P client and allowing you to earn money towards more music based upon how many people download from your computer. P2P programs have always relied on the end user clients to be part of the distribution network, your contribution toward finding the files you needed. Peer Impact provides a monetary incentive to participate in the P2P network, while providing licensed, and thus legal, music downloads.

You have to wonder if these companies would have been able to make agreements with the RIAA record companies if Apple hadn't proven that people will indeed pay money for reliable and convenient access to music. You also have to wonder if Steve Jobs isn't kicking himself for not making those original deals exclusive arrangements. Still, with the complete hardware ([iPod](#)) and software ([iTunes](#)) package, Apple has quite a head start.

A New Day for Online Music Lovers?

Perhaps the RIAA has had a tremendous awakening and will concentrate on making licensing deals for their members which will make those "illegal" downloads a thing of the past by making the online sale of music as ubiquitous as banner ads. Still, I doubt that twelve-year-olds are yet safe from those marauding RIAA lawyers. And, I doubt that MGM will drop the Grokster case.

Still, the movie studios could learn a thing or two from the record companies. Broadband networking makes downloading high-quality video a technical possibility. It's obvious now that they can't stop the technology. Perhaps they will embrace it and reap the same kind of substantial profits that video cassette rentals have brought them. Of course, there is the recent [rumor](#) of a video iPod. Will Steve have to lead the way yet again?

[Return to top](#)

Link of the Month

Benchmarks Online

Skip Navigation Links

Link of the Month

Each month we highlight an Internet, USENET Special Interest Group (SIG), or similar mailing list(s) or website(s). .

Mean Green Sports

Think there's nothing going on with UNT athletics this summer? Think again. Check out "the official site of North Texas Athletics" -- http://www.MeanGreenSports.com -- and get the latest news on all sorts of sporting activities and events.

Return to top

Benchmarks Online

IRC News

Minutes provided by Sue Ellen Richey, Recording Secretary*

June 21, 2005

VOTING MEMBERS PRESENT: PHILIP TURNER, ELIZABETH HINKLE-TURNER, COY HOGGARD (for JONEEL HARRIS), PAUL HONS (for JUDITH ADKISON), JIANGPING CHEN (for GUILLERMO OYARCE), WIL CLARK (for JOHN PRICE), BRENDA RITZ (for PATRICK PLUSCHT), BRUCE HUNTER, LOU ANN BRADLEY, RAY BANKS, CENGIZ CAPAN, RAMU MUTHIAH, JIM CURRY, CRAIG BERRY (for MAX KAZEMZADEH), JOHN BERRA (for DON GROSE), CHUCK FULLER, ABRAHAM JOHN **NON-VOTING MEMBERS PRESENT:** MAURICE LEATHERBURY, PHILIP BACZEWSKI, JOE ADAMO, SUE ELLEN RICHEY (Recording Secretary) **MEMBERS ABSENT:** ROBERT NIMOCKS, MARGARET AMBUEHL, CHRISTY CRUTSINGER, SANDRA TERRELL, JON NELSON, KENN MOFFITT, KATHY SWIGGER, DOUG MAINS, BOBBY CARTER **GUESTS:** CHARLOTTE RUSSELL, TOM MCELWEE, UWE ROSSBACH

DCSMT

Philip Baczewski reported for the DCSMT, that at their June 3 meeting, Elizabeth Hinkle-Turner demonstrated the new CBT Documentation website - http://www.unt.edu/cbt and announced that GroupWise 6.5 training is available on CD-ROMs that can be picked up at the Helpdesk. Blair Copeland brought up for discussion a need to reduce broadcast traffic to improve throughput. He will be looking into turning off NetBIOS over Ethernet (NetBEUI) support for all subnets except those requiring that feature, and making other changes to improve throughput. In addition, Jason Gutierrez reported that he has requested up-to-date numbers of Macintosh computers from the different areas to be included in Apple AMP (Apple Maintenance Program) support contract. This new support agreement will replace the current TAP (Technology Assurance Program) contract which provides access to the current Mac OS X operating system for existing campus Macintoshes. Also, Maurice Leatherbury reported on LEARN, the Texas fiber optic network that now has 33 member institutions. LEARN was given $7.5 million to build a network. In about two weeks the first segment between Houston and College Station will be lit up. The next segment will be from Dallas to College Station, and then Austin. Committees are discussing ways to use the system and alternative funding models are being discussed.

At the June 17th DCSMT meeting, Bill Niederstadt and John Perrotto of Dell, inc. discussed the recent printer promotion they had with the campus. There were a few service problems but a new procedure for rapid response has been set up that will, hopefully, take care of the situation.

CITC Organizational Changes

Maurice Leatherbury distributed a CITC organizational chart and explained the changes that have been made since he became the Assoc. VP for Computing in January of this year.

Maurice introduced the four new Directors: Philip Baczewski, Director of Academic Computing & User Services; Joe Adamo, Director of Communications Services; Charlotte Russell, Director of Administration & Compliance; and Tom McElwee, Director of Enterprise Systems Technical Services.

Learning Enhancement Planning Group

Brenda Ritz reported for the Learning Enhancement Planning Group that the group has met twice to view demonstrations of two different clicker technologies. Brenda distributed a report from Ohio State University on Classroom Response Systems (CRS) technologies. The report will be distributed electronically to all IRC members.

Communications Planning Group

Lou Ann Bradley reported for the Communications Planning Group that they met last week primarily to re-write the group's charge. She distributed the proposed revision to the members for review. Lou Ann explained that since the group's former charge has really been accomplished, they want to continue to be productive so they would like to establish a new purpose for their group. In addition, the planning group needs some new members; therefore, after a new charge is approved by the IRC, they would like to work on getting some new appointees to work on the committee. Discussion followed regarding new telephony technologies such as IP phones, PC plug-in phones and the issues involved in implementing new telephony technologies at UNT. The new charge will be considered for adoption at the July IRC meeting.

EIS Planning Group

Coy Hoggard reported for the EIS Planning Group that they are presently heavily involved in dealing with registrations and other student-related issues. They have concluded what is now known as the 2 week 1 session (formerly known as May-mester) as well as the traditional spring semester with successful registrations and grade reports for both. This summer they will be dealing with running a number of individual sessions within the 2 summer terms and also registering for the fall semester, including twice / week freshman orientation sessions throughout the summer. Coy explained that a program flaw in the system caused a large number of students' registrations to be incorrectly deleted. This affected 5,900+ students and 14,000+ individual enrollments. The flaw was corrected and members of the Student Records support team were able to restore the deleted enrollments the same day. Lou Ann Bradley pointed out that although the basic data may have been restored the same day, that some ancillary functions were affected and the consequences of this problem are still being felt by the Library and perhaps other areas as well. Coy reported that the CITC continues to purchase additional equipment to increase capacity and improve service. A significant amount of capacity has been added to the HDS (Hitachi Data Systems) SAN (Storage Area Network) that is located on the 5th floor of the GAB and are scheduled to install a second HDS SAN in the CITC computer room at the UNT Research Park. This will move UNT closer to having redundant systems which will allow for quicker recovery in the event of outages in either of these two computer rooms. They also plan to install two faster application servers in time to be of benefit for the heaviest part of the fall 2005 registration. This move will increase the total capacity of the app servers by approximately 30% and will allow for better workload balancing across the application servers. In addition, Coy reported that the Cypress software product that was purchased for distribution and on-line viewing of reports is being implemented and they are now using it to distribute telephone bills and payroll detail reports. They anticipate being able to use it to deliver accounting statements shortly. Coy also reported that in response to student complaints, work is underway to

provide an Adobe PDF file containing course listings with correct course prefixes to assist students in registering for classes. This is something of a stop-gap measure until a better solution can be developed. Plans are being developed for upgrading the PeopleSoft applications software to later versions. Since PeopleSoft / Oracle has announced that support for version 8.4 of the Finance System (the version we currently use), it is likely that the Financial System will be upgraded first, with the Learning Solutions upgrade following closely. Users will be involved in detailed planning before plans and dates are solidified.

Research Park Questions

Uwe Rossbeck, of College of Engineering, asked if there was backup power at the Research Park in case of power failure, and asked how long the backup power would last. Maurice stated that he has asked Facilities for backup power for all computing rooms. Currently the backup power that they have would last only 2-3 hours. Coy added that they are working to establish a redundant system on the main campus so that production could continue if power to one system was lost, even though the production might be in a degraded mode for a time. Maurice stated that the database servers are not at present replicated; and one of his goals for the upcoming year is to set up a failover system for the database servers.

Student Computing Planning Group

Elizabeth Hinkle Turner reported for the Student Computing Planning Group that the group has not met recently, but that she is involved in Freshman orientation, which is going well. She stated that she has been trying throughout the year to keep students informed of special computer and software deals that the UNT Bookstore has made with Dell, Microsoft, Adobe, and Apple. The Bookstore has Dell computers on site with wireless cards installed so that students can try them out. Elizabeth said that ResNet is coming out with a flyer and CD to help students.

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* For a list of IRC Regular and Ex-officio Members click here.

**DCSMT Minutes can be found here.

IRC Meeting Schedule

The [IRC](IRC) generally meets on the third Tuesday of each month, from 2-4 p.m., in the Administration Building Board Room. From time to time there are planned exceptions to this schedule. All meetings of the IRC, its program groups, and other committees, are open to all faculty, staff, and students.

Return to top

Benchmarks Online

Research and Statistical Support
University of North Texas

RSS Matters

Link to the last RSS article here: A Video Introduction to Creating Web Surveys with QSurvey - An Open Source Zope Application - Ed.

Stata 9: Introduction to Mata

By **Patrick McLeod**, ACS Research Consultant

The main difference between Stata 9 and previous versions of Stata is the addition of Mata, a matrix programming language native to Stata 9. Mata can be used for matrix calculations and can be used as an alternative to add specific functionality to Stata outside of programming new .ado files.

In this short introduction, we'll look at how to verify your Mata settings and a simple example of how to employ Mata.

What's Mata?

Mata is not designed to be a replacement for programming in Stata, i.e. writing new .ado files to add functionality to Stata. According to the Mata manual, Mata is appropriate for use in creating subroutines to run within .ado files.

Before you use Mata for the first time, it's a good idea to see what your Mata settings are since they will affect how it behaves. This can be accomplished by invoking Mata in Stata by typing *mata* on the Stata command line and then typing *mata query* at the Mata prompt:

Stata/Mata will return the settings for the following components of Mata (from Stata 9 help files): *matastrict* sets whether declarations can be omitted inside the body of a program. The default is off. If matastrict is switched on, compiling programs that omit the declarations will result in a compile-time error. The next component, *matalnum* turns program line-number tracing on or off. The default setting is off. This setting modifies how programs are compiled. Programs compiled when *matalnum* is turned on include code so that, if an error occurs during execution of the program, the line number is also reported. Turning *matalnum* on prevents Mata from being able to optimize programs, so they will run more slowly. Except when debugging, the recommended setting for this is off.

Mataoptimize turns compile-time code optimization on or off. The default setting is on. Programs compiled when *mataoptimize* is switched off will run more slowly and, in some cases, much more slowly. The only reason to set *mataoptimize* off is if a bug in the optimizer is suspected. *Matafavor* specifies whether, when executing code, Mata should favor conserving memory (space) or running quickly (speed). The default setting is space. Switching to speed will make Mata, in a few instances, run a little quicker but consume more memory.

Matacache specifies the maximum amount of memory, in kilobytes, that may be consumed before Mata starts looking to drop autoloaded functions that are not currently being used. The default value is 400, meaning 400 kilobytes. This parameter affects the efficiency with which Stata runs. Larger values cannot hurt, but once *matacache* is large enough, larger values will not improve performance. *Matalibs* sets the names and order of the .mlib libraries to be searched. *Matalibs* usually is set to "lmatabase;lmataado". However it is set, it is probably set correctly, because Mata automatically searches for libraries the first time it is invoked in a Stata session. If, during a session, you erase or copy new libraries along the adopath, the best way to reset *matalibs* is with the mata index command. The only reason to set *matalibs* by hand is to modify the order in

which libraries are searched. *Matamofirst* states whether .mo files or .mlib libraries are searched first. The default is off, meaning libraries are searched first.

Now that we've reviewed our settings, let's progress to a simple example of employing Mata.

Mata: A First Example With An Enhanced Ado File

(from Mata Manual M-1)

Let's pretend that Stata cannot produce sums and we want to write a new command for Stata that will report the sum of a single variable. Here is how this could be done with an .ado file:

```
Program varsum
  Version 9.0
  Syntax varname [if] [in]
  Marksample touse
  Mata: calcsum("'varlist'", "'touse'")
  Display as txt " sum = " as res r(sum)
End

Version 9.0
Mata:
Void calcsum(string scalar varname, string scalar touse)
{
  real colvector   x

  st_view(x, ., varname, touse)
  st_numscalar("r(sum)", colsum(x))
}

end
```

Invoking this program from within Stata will produce the sum of a variable with the syntax of *varsum* and then the variable name. On a closing note, I will be covering elementary Mata operations in my Intermediate Stata short course in Fall 2005. Until then, happy computing!

Links:

- Stata Corp: http://www.stata.com/

- Stata 9: http://www.stata.com/stata9/

- Mata Manual (not part of the GradPlan):
  http://www.stata.com/bookstore/mata.html

- Ordering online through UNT's GradPlan:
  http://www.stata.com/order/new/edu/gradplans/gp-campus.html

Benchmarks Online

WWW@UNT.EDU

Apache 2.1 Failings:
mod_authnz_ldap and mod_authn_file
Part IV

By **Shannon Eric Peevey**, **UNT Central Web Support**

Introduction

In last month's article, we talked about configuring Apache 2.1 with mod_authnz_ldap. This month we are going to take the plunge and add real power to our authen/authz setup. We are going to configure Apache 2.1 to fail-over, or DECLINE, from mod_authn_file/mod_authz_groupfile to mod_authnz_ldap.

Background

At the University of North Texas we need to maintain two separate user databases for web developers. One, is the user database that contains the credentials for UNT staff and students, (an LDAP database), and the second, is the database of users that are not affiliated with UNT, but are retained to maintain websites for UNT-related activities, (using htpasswd/htgroup files as our database). Because of these two databases, we need to have a way for Apache to check one database, and if that test fails, the "backup" database before completely denying access to the user, (signified by a 401 Unauthorized header being returned to the web browser). Luckily, as mentioned in my last article, Apache has a great way of allowing you to stack handlers at the various stages and allows a failed test in one handler to hand off, or DECLINE, the request to a second handler in the same phase. For the purposes of this article, we are only interested in the authentication (authen) and authorization (authz) phases, which test a user for identification (authen), and then test to see if the user has rights to access the object requested (authz).

mod_authn_file/mod_authz_groupfile and mod_authnz_ldap

Over the last few months, we have configured Apache 2.1 to use mod_authn_file/mod_authz_groupfile and mod_authnz_ldap separately. Now, let's combine these configurations into one <Location> container so that we can access our different user databases.

First, let's look at the whole configuration of the <Location> container, then I will explain the added directives that are needed for DECLINEing requests between modules.

```
Alias /publish /usr/local/apache21/htdocs
```

```
<Location /publish>

AuthType Basic

AuthName "Stinky monkey!!"

AuthBasicProvider file ldap


### begin of mod_authn_file ####

 AuthBasicAuthoritative Off

 AuthzGroupFileAuthoritative Off

AuthUserFile /usr/local/apache21/access/service.pwd

AuthGroupFile /usr/local/apache21/access/htgroup.wwwroot

### end of mod_authn_file ####


### Beginning mod_auth_ldap ####

AuthLDAPURL ldap://ldap.example.com:389/ou=people,o=example?uid

AuthLDAPBindDN "mybinddn"

AuthLDAPBindPassword "mybindpasswd"

### End mod_auth_ldap ####


require ldap-group cn=admin,ou=groups,o=example

require group admin


Dav On

Options None

ForceType text/plain

</Location>
```

As you can see, we have copied the configuration for mod_authn_file from "Apache 2.1 Failings: mod_authnz_ldap and mod_authn_file Part II" of this series:

```
### begin of mod_authn_file ####

AuthUserFile /usr/local/apache21/access/password
```

AuthGroupFile /usr/local/apache21/access/htgroup

end of mod_authn_file

require group admin

and the configuration from "Apache 2.1 Failings: mod_authnz_ldap and mod_authn_file Part III":

Beginning mod_auth_ldap

AuthLDAPURL ldap://ldap.example.com:389/ou=people,o=example?uid

AuthLDAPBindDN "mybinddn"

AuthLDAPBindPassword "mybindpasswd"

End mod_auth_ldap

require ldap-group cn=admin,ou=groups,o=example

and placed them both into our <Location> container. Next, we modified our AuthBasicProvider to include both "file", (for mod_authn_file), and "ldap", (for mod_authnz_ldap), to make Apache aware of both authen/authz mechanisms.

AuthBasicProvider file ldap

Finally, we added two new directives that we haven't seen before:

AuthBasicAuthoritative Off

AuthzGroupFileAuthoritative Off

The authoritative directives are also found in Apache 2.0, (and possibly 1.3, but I haven't used them in 1.3), and they tell Apache to DECLINE requests to a "backup" authen/authz module if a user's credentials fail the test. Because, mod_authn_file and mod_authz_groupfile are the default authentication/authorization mechanisms in Apache, a default configuration sets:

AuthBasicAuthoritative On

AuthzGroupFileAuthoritative On

Which would cause any failure to authenticate with mod_authn_file to return a 401 Unauthorized header back to the web browser, and pop-up the authentication window for the user to retry logging in. In essence, with AuthBasicAuthoritative and AuthzGroupFileAuthoritative On, a user that only existed in LDAP would never be able to authenticate successfully against our server. Therefore, it is necessary for us to specify:

AuthBasicAuthoritative Off

to allow any failure to authenticate against mod_authn_file to DECLINE to the "backup" authentication module, (mod_authnz_ldap). We also need to specify:

AuthzGroupFileAuthoritative Off

so that any failure to authorize against mod_authz_groupfile, (the authorization module associated with using the htgroup file), to DECLINE to the "backup" authorization module, (also mod_authnz_ldap). mod_authnz_ldap also has a corresponding authoritative statement AuthzLDAPAuthoritative, which would allow you to fail to a "backup" authen/authz module, should the test fail against LDAP.

After you have made these changes and restart your server, hit your site, and make sure that there are no errors in your configuration:

    # lynx localhost/publish

Remember, you can set your LogLevel in the httpd.conf to debug to find out more information about any errors that you receive.

Conclusion

Over the last four months, we have downloaded and compiled Apache 2.1, configured it to authenticate using the built-in "file" and "ldap" mechanisms, and then learned how to fail-over, or DECLINE, one authentication module to another. It has been a long journey, but I hope that you have enjoyed it as much as I. If you have any questions or troubles, please, feel free to drop me a line at speeves@unt.edu .

Take care :)

Return to top

Benchmarks Online

Page One

Campus Computing News

EIS Status Report

UNT Data Encryption Recommendations

Coming this Fall: GroupWise 7

Importing a GroupWise Address Book into Apple's Address Book Program

Summer Hours

Today's Cartoon

RSS Matters

The Network Connection

Link of the Month

WWW@UNT.EDU

Short Courses

IRC News

Staff Activities

Subscribe to Benchmarks Online

Short Courses

By **Claudia Lynch**, *Benchmarks Online* Editor

The schedule for the summer Short Courses are mostly over. There is a "Getting Started with DreamWeaver MX" class remaining, with a few open seats. Surf over to the Short Courses page for further details.

Customized Short Courses

Faculty members can request customized short courses from ACS, geared to their class needs. Other groups can request special courses also. Contact ACS for more information (ISB 119, 565-4068, lynch@unt.edu).

Especially for Faculty and Staff Members

In addition to the ACS Short Courses, which are available to students, faculty and staff, staff and faculty members can take courses offered through the Human Resources Department, the Center for Distributed Learning, and the UNT Libraries' Multimedia Development Lab. Additionally, the Center for Continuing Education and Conference Management offers a variety of courses to both UNT and the general community, usually for a small fee.

EIS Training

Questions or comments relating to EIS training should be sent to the EISTRN GroupWise account.

GroupWise Training

Information about GroupWise training can be found at the GroupWise Support site. A list of GroupWise 6.5 "Tutorial Topics" can be found here: http://ncs.unt.edu/gw/howto/index.htm A GroupWise 6.5 Training CD-ROM is also available. See "Installing and Using GroupWise 6.5 CD-ROM Training from Thomson NETg" in the June issue of *Benchmarks Online* for more information.

GroupWise 6.5 Seminars

If would like to have a Basic GroupWise seminar for your area, please contact Jason Gutierrez, Network Computing Services, jasong@unt.edu.

Center for Distributed Learning

The Center for Distributed Learning offers courses especially for Faculty Members. A list of topics and further information can be found at http://www.unt.edu/cdl/training_events/index.htm

The center also offers a "Brown Bag" series which meets for lunch the first Thursday of each month at Noon in Chilton 245. The purpose of this group is to bring faculty members together to share their experiences with distributed learning. One demonstration will be made at each meeting by a faculty member with experience in distributed learning. More information on these activities can be found at the Center for Distributed Learning Website.

Technical Training

Technical Training for campus network managers is available, from time to time, through the Network Computing Services (NCS) division of the Computing and Information Technology Center. Check the NCS site to see if and when they are offering any training.

UNT Mini-Courses

There are a variety of courses offered, for a fee, to UNT faculty, staff and students as well as the general public. For additional information surf over to http://www.pware.com/index.cfm?clientid=2694a

Alternate Forms of Training

Many of the General Access Labs around campus have tutorials installed on their computers. The Training Web site has all sorts of information about alternate forms of training. Computer Based Training (CBT) is one of the alternatives offered.

For further information on CBT at UNT, see the article "Current UNT Online Training Contents" in the June issue of *Benchmarks Online*.

Return to top

Benchmarks Online

Staff Activities

Transitions

New Employee:

- **Scott Simon**, Computer Systems Manager, transferred to CITC. Central Web Support. from the Research Services office.

- **Douglas Fuller**, Computer Systems Manager, Academic Computing and User Services.

- **Steven Wilbur**, Microcomputer Consultant, Helpdesk (part-time).

- **Peter Gabriel Marshall**, Microcomputer Consultant, Helpdesk (part-time).

- **Luis Sanchez**, Operations, CPU Operator (part-time).

Changes:

- **John Hooper**, technical project manager of the EIS implementation, has been appointed to replace Coy Hoggard, who is retiring in August, as Executive Director of Administrative Information Systems, effective immediately.

Awards, Recognition, Publications, etc.

As reported in *InHouse* ...

Dr. Elizabeth Hinkle-Turner, Student Computing Services Manager, received the 2005 Pauline Alderman Award for Outstanding Scholarship on Women in Music from the International Alliance for Women in Music in the category of outstanding journal article. She wrote "Women and Music Technology: Pioneers, Precedents and Issues in the United States," published in the April 2003 issue of Organized Sound: An International Journal of Music Technology, vol. 8, no. 1. The award was presented at the annual concert and board meeting of the IAWM, June 4-5 in Washington, D.C.

Dr. Maurice Leatherbury, Associate Vice President for Computing and Chief Technology Officer, and **Mike Maner**, Manager of Data Communications, discussed Internet file-sharing concerns at UNT in the June 28 *Denton Record-Chronicle*.

Benchmarks Online

Don't Forget Our Monthly Columns!

By **Claudia Lynch**, *Benchmarks Online* Editor

In addition to our feature articles, *Benchmarks Online* publishes monthly columns that are focused on specific aspects of computing here at UNT (and beyond, in some cases). Check out what is waiting for you this month:

- **RSS Matters** - "RSS Matters" is the monthly column written by the Research and Statistical Support **Group** in Academic Computing Services. Their articles focus on topics of a statistical and/or research methods nature. **This month, Patrick McLeod talks about "Stata 9: Introduction to Mata."**

- **The Network Connection** - "The Network Connection" may well be the longest running column in computer publishing history. Certainly in University of North Texas computer **publishing history**.

  This month Dr. Baczewski talks about "Dancing Indiscrete." Read this article for Baczewski's take on the latest RIAA and MPAA developments.

- **Link of the Month** - As it says on the top of the "Link of the Month" page, "each month we highlight an Internet, USENET Special Interest Group (SIG), or similar mailing list(s) or Website(s)." Lately we have been confining ourselves to featuring UNT specific sites. **This month's feature is "Mean Green Sports."**

- **WWW@UNT.EDU** - "WWW@UNT.EDU" is a monthly column written by the Central Web Support **Group** in Academic Computing Services. The topics usually focus, in some way, on World-Wide-Web-related issues. **This month, Shannon Peevey completes a multi-part series on Apache 2.1. Part IV is called "Apache 2.1 Failings: mod_authnz_ldap and mod_authn_file."**

- **Short Courses** - Every semester, Academic Computing Services (ACS) offers short courses on computer-related topics, many of them having to do with statistical research. This column keeps you up-to-date on what is being offered and when as well as other training opportunities. The schedule for the summer Short Courses are mostly over. There is a "Getting Started with DreamWeaver MX" class remaining, with a few open seats.

- **IRC News** - As their Webpage **says**, "the IRC is an advisory and oversight body created to foster communication and cooperation between and among UNT information resources providers and users." We publish the

minutes of the IRC meetings each month, when they are available. **The June 21, 2005 minutes are published this month.**

- **Staff Activities** - This column focuses on new employees, people who are no longer employed at the Computing and Information Technology Center, awards and recognitions and other items of interest featured here.

Return to top