

# TECHnically Speaking

UNC's Information Technology Newsletter

UNC  
INFORMATION  
MANAGEMENT  
& TECHNOLOGY *imt*  
Newsletter

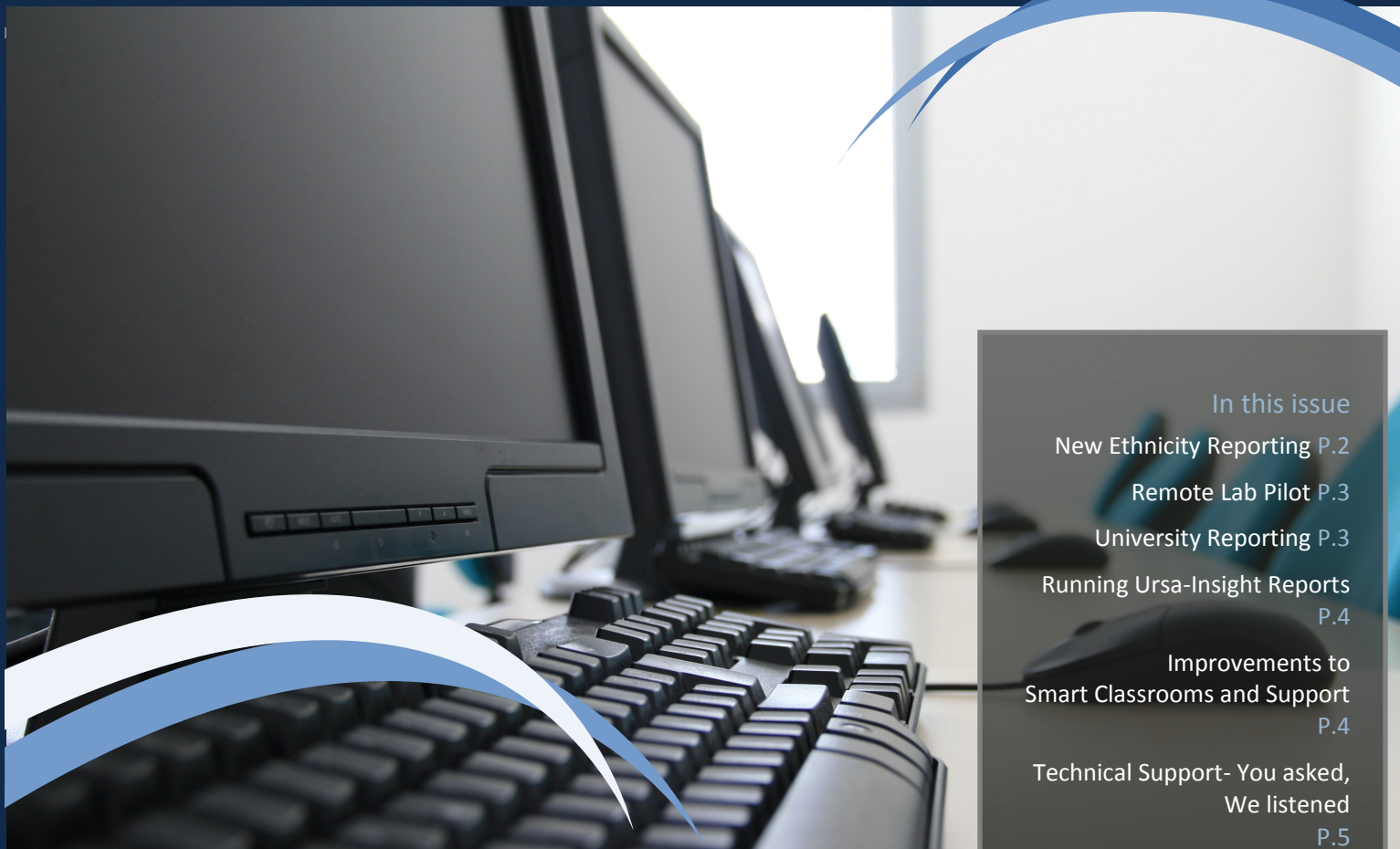
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## Sustainable Cost Savings

Surrounded by colleagues, faculty, staff and students in the ballroom at the University Center in September, President Norton asked faculty and staff how they might reinvent their operations to make them more effective, make UNC a better place to work, and cost less. It was at her annual State of the University Address where she challenged everyone to be creative, innovative, and entrepreneurial.

The Information Management and Technology department continues to investigate ways to deliver technol-

ogy and information in the most cost efficient manner possible. IM&T regularly reviews their budget and looks for lower cost alternatives that may provide the same or better functionality. If you are curious about IM&T's budget and expenses please review the spring 2010 newsletter, now online at <http://www.unco.edu/it/ITNewsletters/index.html>.

IM&T has used cost reduction strategies such as adopting stan-

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dards; volume purchase agreements; collaborating with other institutions (consortium purchasing); implementation of new and different technologies that yield higher return on investment; and sometimes even assuming a small risk to eliminate expenses.

VoIP is an example of a technology that has proven to be a cost saving measure. When VoIP was first implemented, approximately five years ago, IM&T (formerly IT) was able to reduce institutional ex-

for internet if you attach more than one PC to your home network.

Another IM&T venture, which President Norton positively recognized during her address, was the 4 year computer refresh program. This program evenly distributes an institutional asset and takes full advantage of volume discounts and standards.

IM&T is actively participating in President Norton's planning frame-

***There are a number of things that IM&T does and has done to make sure that they are not making "draconian budget cuts", as Norton puts it, but rather implementing sustainable cost saving strategies.***

penses and those savings were returned to the central budget. More recently, VoIP has helped the institution avoid increased expenses while at the same time help improve the stability of the phone system (read about Improvements to the Campus Telephone System in this issue of Technically Speaking).

Serial Internet Protocol (SIP) allows IM&T to pay for telephone service much like you pay for internet service at home. In other words, UNC does not pay per phone extension, example: 351-xxxx (xxxx being the extension). Instead, UNC pays a flat fee regardless of the number of extensions. This is comparable to how you don't pay more

work and doing everything possible to implement technology and provide information in a sustainable way. If you have a cost saving suggestion related to technology or information, please contact Jeanette.Vangalder@unco.edu who will be happy to hear your ideas.



## New Ethnicity Reporting

The race and ethnicity of UNC students and staff is being collected and reported in a new way. The change is based on an adjustment in federal requirements, finalized in October 2007. Information Management & Technology must submit aggregate race/ethnicity information to the state and federal government for funding and evaluation purposes.

In the past, UNC has asked students, faculty and staff to choose their ethnicity from a single list of options, essentially a one-part question. Recently, the format has changed to a two-part question as mandated by federal regulations, asking first if the student or employee is Hispanic. Once the student or employee chooses yes or no for that question, they are then led to a second question which allows them to choose from five different race categories. These are White, Black, Hawaiian, Asian, or Native American. If the student or employee indicates more than one race they will be classified as multi-racial.

Fall semester, 2009, UNC started **collecting** the race/ethnicity information using the new format for newly admitted students and for newly hired employees. Then, in the spring of 2010, a resurvey process took place. At that time students registering for fall or summer 2010 classes were asked to update their race and ethnicity information. Upon completing the survey, students will not be asked to complete it again however they may make changes to their selection, if they so choose. The summer 2010 student information report, which was filed with the government, **reported** the aggregate race/ethnicity figures using the new the new method. This change limits the ability to compare historical race and ethnicity information to the demographics of our current populations.

## University Reporting

**Did you know** that state and federal laws require many higher educational institutions to submit a series of data reports as a means of holding them accountable, for policy development (rulemaking) and analysis, for developing benchmarks and for peer analysis? One federal agency collects data from over 6,500 institutions! Once collected, the information is shared with the public, usually via a website such as <http://nces.ed.gov/collegenavigator>, so students and parents can make an informed decision when determining which college or university best meets their needs. UNC Information Management & Technology files mandated reports for UNC with the State of Colorado (Student Unit Record Data System or SURDS) and the federal government (Integrated Post-Secondary Education Statistics or IPEDS) annually in addition to supplying information to other entities such as the College Board and publishing agencies (ex: US News and World Report, Princeton Review and Petersons). Primarily, the information being requested is about student enrollment, degrees awarded and financial aid. In addition to the data providers listed above there are many researchers who, on an ad hoc basis, ask IM&T to complete surveys. An instrument called the Common Data Set (CDS), which is completed by IM&T annually, is used to answer these commonly issued surveys and ensures many of the survey responses are consistent and follow the same definitions used by the government and the department of education. Annually, IM&T will complete more than 50 surveys for external (non-UNC) entities.



## Remote Lab Pilot

V D I- How can these three little letters benefit you? Well, VDI (Virtual Desktop Infrastructure) is how IM&T created the remote lab that is currently being piloted in the Sociology program. What is a remote lab you might ask? A remote lab allows students and faculty, who are connected to the Internet, the ability to access software applications that are normally only available by visiting a traditional on-campus computer lab. Basically, you are using your own computer to connect to a UNC workstation and operate it as though it's your own. Imagine for a minute that you are a student who needs to use SPSS, but you live in Denver, Loveland or Fort Collins. You can't justify driving in a blizzard to use the on-campus computer labs that offer SPSS, can you? Also, you may find it is not cost-effective to pay for a full version of a software package such as SPSS or Adobe Creative Suite when you are only using it for one project in one class, and why buy it when the University provides it anyway? If students and faculty had the ability to access the software that has already been purchased by the university without having to commute to an on-campus lab, wouldn't you be thrilled?

VDI is a great solution for faculty who felt as though it was impossible or cost prohibitive to deliver an on-line course because it required the use of specialized software that was only accessible by visiting an on-campus computer lab. By using VDI, faculty and students can access the same software from their

homes. Exciting technology!

Professor Jeffrey Houser has been piloting the remote lab this semester and is having great success with it. "Remote lab is wonderful! It gives students the opportunity to work at their own pace, off campus, with the power of the mainframe to use stat programs like SPSS," said Houser. He said that the one possible setback is that students have to think with two sides of their brain when going to save their work. They need to remember to save their work to a flash drive instead of the server so they don't save it in the wrong location and virtually lose it. Houser feels that it would be a benefit for the university if this could be extended to the other academic programs. He feels it's a "wise use of resources that gives students more flexibility than what they have now."

During the fall semester, IM&T partnered with a couple other faculty members who agreed to teach courses using VDI so they too can provide their input. So far, the feedback has been positive. IM&T is currently surveying the students who used this advanced technology as well as visiting with the faculty. Based on the feedback they receive, IM&T will make a decision regarding the next phase of this project.

# Running Ursa-Insight Reports in Deferred Mode is a Time Saver

Have you ever been in a hurry to run an Ursa-Insight report for an important meeting that you needed to be at ten minutes ago? How about that time you ran a report, closed it without saving, only to realize that you needed more information from it, forcing you to run it again? Have you ever wondered how certain reports can be available without having to generate them over and over? Insight gives you the ability to run your reports in what is called deferred mode so your report is available to you on demand by simply going to your own personal report library. IM&T recommends that you use deferred mode if you are running a big report because it will allow you to continue working on your computer while the report is being generated in the background. Another benefit to running reports this way is that they will stay instantly available to you for 30 days after you run them, just keep in mind that the information in the report will be static from the date that you ran it, which is sometimes also very useful if you want to see the changes that took place over time. If you need to get the most updated information then you would need to re-run the report to get any and all updates.

## Another Insight Timesaver

Another exciting service that IM&T offers is Report Caster scheduling. This service is for people who run reports daily, weekly or on another regular schedule. IM&T can automate and actually run those reports for you! To take advantage of this service, just call the TSC or enter an online ticket to set it up. After you do so, IM&T professionals will run and email the needed reports to you and whom-ever else you indicate. This service has the potential to save you time.

## Want to know what Insight reports are available to the campus and more about what information the reports contain?

All faculty and staff have access to Insight (the report portal). If you're interested in seeing what reports are in Insight, login to Ursa, Select Employee tab and login in to Insight, go to University View, if you're not already there when you login, click the Insight Catalog tab and run BRC001. This will take you to the report catalog. There are many interesting and pertinent reports available for faculty and staff use and knowledge.

If you have any questions regarding report running and how we can make it easier for you, please call the TSC at 970-351-HELP. Want to know more about Insight? Go to:<http://www.unco.edu/aboutinsight>

## Improvements to Smart Classrooms and Support

This fall, IM&T made some minor improvements to the smart classrooms and their support structures. Some of the improvements include Windows 7 upgrade, new clicker technology, and a formal review process.

The Windows 7 upgrade was deployed to smart classrooms campus wide. This upgrade removed generic accounts for security purposes as well as changed the default login domain to (@unco.edu).

Working with the Center for the Enhancement of Teaching and Learning (CETL), a new clicker technology was added to every smart classroom. The clicker software is installed in every smart classroom and the clickers integrate with Microsoft PowerPoint. For clicker channel assignment, please see the documentation in each room.

Finally, this semester, a formal review process of the rooms was implemented. A detailed checklist has also been made to determine the functionality of each classroom prior to the start of classes each term. In addition to the verification of equipment (projector, document camera, DVD, etc) IM&T has implemented a computer software review process to ensure improved stability of the computers in each smart classroom. Currently, IM&T is developing a smart classroom monitoring and management system called RoomView. This will be deployed in the spring of 2011. This will allow for proactive management of classroom technology. For example, it will allow the technicians to know when a projector bulb needs to be replaced before it fails. This will also allow for the Technical Support Center (TSC) to offer remote hands functionality to help resolve any problems that faculty may face. Finally, it will also allow proactive targeted notifications of long-term (more than a day) outages to faculty so they are not taken by surprise.

If you have any questions about the new and exciting improvements or how to use them, call 970-351-HELP for more information or assistance.

# Technical Support – You asked, We listened.

You have asked, and we have listened. The Technical Support Center has expanded its on-campus staffing and hours of operation. When you dial 970-351-HELP (4357) you will speak with an on-campus representative during the following hours listed below.

The updated hours of operation, previously supported in part by an off-campus company, have been identified as critical to the support needs of the campus community. Based on your feedback, we found that the service of the off-campus organization was not meeting your needs. These results indicated that our on-campus student and full-time staff better understand and meet your technical needs and expectations. To ensure we capitalize on this success our on-campus services will be staffed mainly by UNC students. This will allow more UNC students the opportunity to learn important professional skills such as customer

service, technical troubleshooting and problem solving skills.

The campus community also identified that it was critical to the academic mission that we maintain the availability of technical support representatives 24/7/365. To achieve this, the remaining hours not staffed by on-campus UNC personnel will be facilitated by an answering service. In case of an emergency, IM&T technicians will be contacted. Otherwise, IM&T staff will take the message and get back to you within normal business hours. This group will document your support request and notify on-site staff for troubleshooting and resolution. We have limited the use of this group to hours where less than 3% of our total telephone contact is made. An additional benefit of this updated support model is that we will be able to avoid any increase to our existing cost model.

We want to ensure that our services align with your needs and believe that our updated on-campus model will bring us closer to this goal. By utilizing our students as a primary resource and expanding our on-campus hours we will improve your technical support experience while decreasing the cost of continuous support to the institution.

**Monday-Thursday: 7am-10pm**

**Friday: 7am-5pm**

**Saturday-Sunday: 10am-7pm**

**\*Holidays and University  
closures excluded**

## Improvements to Insight

**INSIGHT**

*"There is nothing so terrible as activity without insight." - Goethe*

The Information Management and Technology department is always looking for feedback that will make the Insight reporting portal more user-friendly and reliable. Because of this, several Insight enhancements are planned for the next calendar year.

IM&T has been reviewing the technical support calls, interviewing departments, and collaborating with the reporting software vendor (Information Builders). Using a tool called Resource Analyzer, IM&T has the ability to look at report usage statistics. This will help them identify slow running and high demand reports.

IM&T has worked to improve Insight's performance this fall. Several more upgrades will be taking place in the future in order to continue to improve the speed in which a report is generated and the reliability of the system. Another enhancement that IM&T is currently working on is the ability to eliminate the redundant login and password when Ursa users want to use Insight. Exciting news- this means a single log on!

In addition to these software enhancements, IM&T is looking at better ways to organize the reports that are accessed via Insight. There is a concentrated effort to move commonly used reports that are in Development to Production. When reports are migrated to Production, they will have report descriptions that will include information about what data (columns) are in the report, and the approximate run time it takes before a report will appear on your computer screen. You can access the full report catalog (BIRC) by going to the University View and selecting the Insight Catalog tab.

Remember to please open a call with the technical support center at 970-351-HELP if you have any Insight questions, need report training, want to request a new report, or encounter a problem with Insight reports.

## Midterm Grades

The department of Information Management and Technology has written a new MidTerm Grade application that will allow faculty to assign midterm grades for all students in a course, in addition to those who are required to receive a midterm grade such as freshmen, athletes, probationary and those advised through CHE and Cumbres. This new capability was provided after listening to many UNC professors who requested the enhancement. Remember, you can still post grades through Blackboard, or you can use the Midterm Grades application. The Midterm Grades application can be found on your faculty tab in Ursa. If you have any questions on how to utilize this application, please call the Technical Support Center at 970-351-HELP.

## Improvements to the Campus Telephone System

This semester, IM&T made improvements to the campus telephone system. By utilizing the existing VoIP (Voice over Internet Protocol) technology, IM&T was able to create a redundant path for inbound and outbound campus phone calls which will prove to be extremely beneficial to the institution during a service outage by our vendor. During such a failure, the secondary (redundant) path would keep the campus phones operational therefore employees and students would be able to continue to place/take calls. The newer technology, Serial Internet Protocol (SIP), allows more phone conversations to occur simultaneously which will be beneficial during high call volume periods, such as the beginning of the semester or during a campus emergency. Because IM&T had already invested in VoIP for the campus and by capitalizing on a highly competitive bid/RFP these improvements were made at no additional cost to the institution. IM&T is proud to be the only University in Colorado using this advanced technology.

## Innovative Technology Committee

Information Management & Technology, the Center for the Enhancement of Teaching and Learning (CETL) and other academic representatives have assembled technical staff and trainers to test and evaluate new software in a controlled environment prior to campus wide deployment. When a product is released from the vendor, the Innovative Technology Committee (InnoTech) will meet and prepare for campus use through four separate phases listed below. Some of the products that have been vetted through this committee in the past are Windows 7 and Office 2007. An example of software that is currently being reviewed and tested by the InnoTech Committee is Office 2010.

**Phase 1 - Technical Overview and Research.** The new software is installed on two or three computers within the department, which are segregated from the network. During Phase 1 technicians get a general overview of the product and identify any potential security vulnerabilities with the product. They also research the product by using resources such as online technical journals in order to start preparing for implementing the product into the University environment. Once the product has cleared a security test then testing moves onto Phase 2.

**Phase 2 - Detailed Testing and Compatibility.** During this phase, the software is installed on all Innovative Technology team members' computers. Extensive testing is performed on the new software with all University enterprise software. A list of known compatibility issues is created and the team works with software vendors to resolve incompatibilities. A training plan, a technical support plan, and a deployment plan are created during this phase. Once

the majority of the compatibility issues have been resolved the testing moves onto Phase 3.

**Phase 3 - Early Adopters.** During this phase software is installed on a select number of computers outside of Innovative Technology. These users include faculty, staff and small computer labs. During this phase the Innovative Technology team solicits feedback from the early adopters and continues to develop support and training plans. Hands on training is also available during this phase, where users can see the new software in a test lab. Once all feedback is received and Innovative Technology is ready to officially support the product throughout the entire University then the product is deployed through Phase 4.

**Phase 4 - Campus Deployment.** During this phase the product is deployed to campus and communications are sent to campus. Hands on training continues to be available to campus through the Center for the Enhancement of Teaching and Learning (CETL).

For more information regarding the Innovative Technology Committee, please visit them at <http://www.unco.edu/it/aboutus/innotech.html>

# Team Foundation Server

Team Foundation is a set of tools and technologies that enable the IM&T programming team to collaborate and coordinate their efforts on building a product or completing a project. Team Foundation enhances team communication, tracks work status, supports team roles, enacts the team process, and integrates team tools.

The reduction in service calls to the Technical Support Center can be attributed to the implementation of the Team Foundation Server which took place a little over a year ago. Team Foundation alerts support staff of issues (day and night) and tracks issues with web applications. These alerts help the support staff discover and fix problems earlier.

Managing software is always a challenge, particularly when you are writing web applications between and among many programming staff. Prior to implementing the Team Foundation Server, software programming instructions could be stored in multiple locations and this would cause confusion. Now the software developers are able to keep their software programming instructions in an organized catalog. The catalog allows the programmers to check out code,

ensuring that only one person is editing it at a time.

All in all, the Team Foundation Server is a great tool because it facilitates collaboration between the programmers who are developing new applications, fixing problems and implementing enhancements. Problems get fixed faster and more efficiently, not to mention the huge decrease of downtime in applications.

The Team Foundation Server was first installed last November and will be upgraded to the 2010 version by the spring semester. This upgrade will offer many new features and benefits.



## IM&T Computer, Network and Technical Support Dashboard

The Information Management and Technology department manages various technologies that provide services to the campus community. Some of the technologies are visible to you while some are not. Have you ever wondered what the campus internet bandwidth is? Or perhaps how many calls the Technical Support Center handles in a month? Well, IM&T is in the process of building an information technology

dashboard that you can visit to gain more information about the technology that you use and the technology that IM&T manages.

The purpose of the dashboard will be to display facts and figures regarding the performance of the technology and services you receive.

For more information, please visit <http://www.unco.edu/it/aboutus/itdashboard/> and as always, if you need more assistance, please call 970-351-HELP.

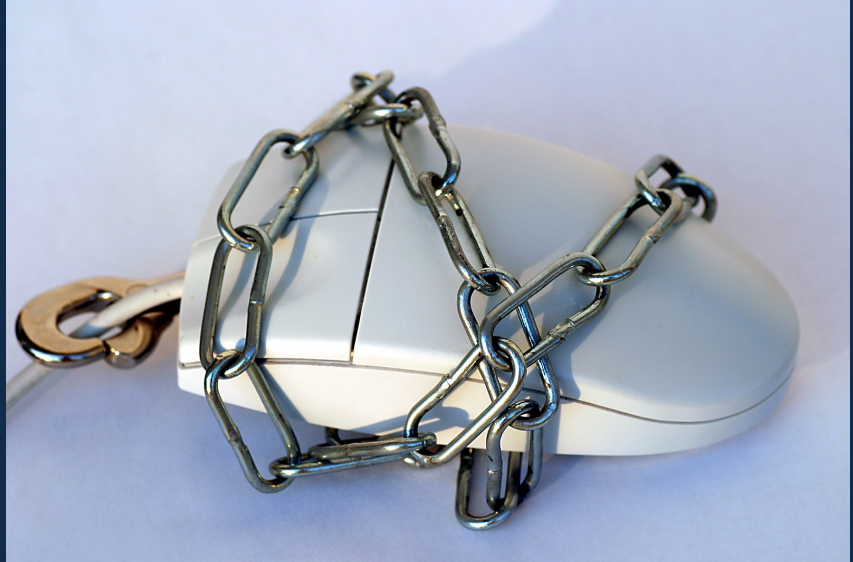
Information Technology Analytic Dashboard	
Search for: <input type="text"/> in the IM&T site. <input type="button" value="Find it!"/>	Throughout the course of the daily management of University Information Technology-related issues, we are committed to continual improvement to the campus community. The purpose of this dashboard is to display current statistical information regarding performance in multiple areas to ensure we are achieving as optimally as possible. To navigate through this site, please choose the main topic you would like to know more about--there will be subsequent information which further elaborates on the data for that category.
<input type="button" value="Support"/>	<b>DASHBOARD INFORMATION</b> Please choose the applicable link below to access the associated charts.
<input type="button" value="Forms"/>	<input type="button" value="Summary Information"/> - Semester-based and Fiscal Year summaries, comparing the previous information to current data.
<input type="button" value="Faculty/Staff Services"/>	
<input type="button" value="Student Services"/>	

## Cyber Security

Did you know that identity theft is the fastest growing crime in the United States? The criminals responsible for identity theft will often use your technological devices to exploit your personal information. Computer and digital media thefts could leave you and the University vulnerable to serious damages and penalties. Laptop thefts commonly take place when they, or other devices such as PDAs, USB drives, or CD's, are left unattended. You might leave them unattended in your hotel room, classroom, office, or car thinking that they are perfectly safe and locked up... well... unfortunately these places aren't immune to theft.

UNC's IM&T Cyber Security website ([http://www.unco.edu/cybersecurity/computer\\_tips.html](http://www.unco.edu/cybersecurity/computer_tips.html)) suggests the following:

- Do not store sensitive information on your computer without adequate protection. Use IM&T recommended encryption solutions if storing sensitive data on your computer.



- If you leave your laptop unattended, make sure that it is physically secured (Lock office doors and use cable locks).
- Do not leave laptops unattended without protection.
- Carry your laptop as hand held luggage when traveling. Be aware that theft is a danger within airport security checkpoints. Checkpoint processes separate individuals from their belongings and present ample opportunity for items to become lost or stolen.

Remember that old adage- "better to be safe than sorry!"

## Whole Disk Encryption

Have you been worried about the security measures on your computer? If not, you probably should be. As pointed out in the Cyber Security article, identity theft is the number one fastest growing crime in the United States. A good measure to take against this threat is whole disk encryption. IM&T offers whole disk encryptions to faculty and staff at UNC. This is essentially password protection for your sensitive information. There are two encryption technologies that are used, one for Apple users and one for PC users. Safeguard by Sophos is what PC users will need for their computers, while Checkpoint is the encryption necessary for Apple users. IM&T is currently updating all Finance and Administration computers to make sure that their information is extra-protected with whole

disk encryption.

Whole disk encryption has several benefits compared to regular file or folder encryption, or encrypted vaults. The following are just some of the benefits of whole disk encryption:

- Nearly everything including the swap space and the temporary files are encrypted. Encrypting these files is important, as they can reveal important confidential data.
- With full disk encryption, the decision of which individual files to encrypt is not left up to users' discretion. This is important for situations in which users might not want or might forget to encrypt sensitive files.
- Immediate data destruction, as simply destroying the cryptography keys renders the contained data useless.

However, if security for future attacks is a concern, purging or physical destruction is advised.

Some exciting news is that it's now compatible with Windows 7!

**Safeguard by Sophos is what PC users will need for their computers, while Checkpoint is the encryption necessary for Apple users.**

If you would like to have this extra security measure installed on your computer, please call the Technical Support Center 351-HELP and they will set up a work order for you.