IUPUI | **SCHOOL OF ENGINEERING AND TECHNOLOGY**

A PURDUE UNIVERSITY SCHOOL

Indianapolis

THE COMPUTER NETWORK CENTER (CNC)

A HANBOOK FOR SERVICES

2008 – 2009

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INTRODUCTION

Computing Facilities

The Computer Network Center, CNC, *http://www.engr.iupui.edu/cnc* , in the Purdue School of Engineering and Technology at IUPUI provides the technical support for the computing needs of the students, faculty and staff. The CNC directly manages 10 instructional and 2 large open PC workstation labs along with technical support for approximately 20 UNIX and PC departmental labs. The typical PC configuration for the CNC labs is at least at a Pentium IV level with various software packages. The CNC is commonly involved in the support of the teaching effort and student project assistance.

The CNC currently supports UNIX, and Windows 2003, 2008 servers. The SUN UNIX servers provide for all general purpose faculty and student UNIX accounts. Apache software handles the school Web services. Calendar and Messaging services based on Microsoft Exchange are provided by the University Information Technology Services, UITS (http://uits.iu.edu). The CNC administers a secondary DNS server for the school-associated domains.

The network infrastructure responsibilities for the CNC span two buildings. The campus network provided by UITS, handles the backbone routing services. The CNC manages all subnets within the Local Area Network (LAN) with a 100 Mbps switch based topology. All subnets within the LAN provide at least certified CAT5E to the desktop. The CNC has adapted its network directory services to the campus based Active Directory Service, ADS, as the organization unit IN-ENGR within the *ads.iu.edu* domain.

Services Available to Faculty

The Computer Network Center, CNC, provides a full range of support services to assist faculty, staff, and students in the use of technology. The CNC is staffed with a director, an academic computing manager, a support services manager, a research computing manager, a database and web administrator, a senior computer support specialist, and a part-time hourly help desk technician. Student employees are also heavily relied upon for hardware, software supports and for the HELP WINDOW function.

The faculty and staff are provided with hardware and software support to maintain maximum productivity for the business of education. Research facilities are supported with technical expertise in areas of UNIX administration along with software and network management. The CNC works closely with departmental local service providers or the Technical Services Team (TST) to insure that the departmental and research labs are supported.

The School WEB Server at http://www.engr.iupui.edu provides information about and for our School and allows our faculty to have a professional web presence.

ACADEMIC YEAR 2008 - 2009

The Computer Network Center (CNC) welcomes everyone back for the new academic year. Currently, all CNC lab computers run Windows XP and CNC servers run Windows 2003 and 2008. Lab software strategies stay with a local build focus emphasizing the effective utilization of hardware and software resources. All ET lower level is dedicated to the computing needs, and the student's learning environment of the school. All CNC labs are available as open labs while they are not scheduled for classes during regular open hours. ET 002, an open lab, is always available during regular open hours. There are 12 Windows workstations, 3 Linux workstations, 3 iMacs, and 3 Sun Rays in ET 002 to cover all needs. ET 019, with 30 Windows workstations, serves as another open lab when it is not scheduled for class. With the help from UITS, we also have wireless WIFI (802.11 B/G) throughout almost all corners of the ET and SL buildings.

Since the establishment of the new computing facility at the lower level of ET building, the CNC has continued to upgrade hardware and software for the labs as well as for the faculty and staff. The goal of these upgrades is in part to get ready for the newer Microsoft operating systems in the future. Several new server upgrade projects are also scheduled to prepare the computing resource in the school for the coming future needs. These server upgrades will provide better performance and reliability for the computing needs in the school. The webpage link, *http://www.engr.iupui.edu/cnc/labs.shtml?menu=info* , provides more information about the resources availability in all CNC labs.

COMPUTER ACCOUNTS

The Computer Network Center supports IUPUI campus user accounts based on the Active Directory Services (ADS). This means that standard access to software within E&T will require you to authenticate with your IUPUI account. The IUPUI account is provided for all existing faculty, staff and students. New faculty and staff are issued an account soon after employment begins.

The IUPUI account that we now use also provides access to the OnCourse WEB Interface as well as your account for dial-in access to IUPUI. Many of you already have an account but you may want to check on the services that you have available at *http://uits.iu.edu*.

New employees of IUPUI need to generate their account. You can do this by visiting *https://itaccounts.iu.edu*. We recommend that you or your department secretary enter your new account into the E&T Faculty/Staff database.

The student accounts are also based on the IUPUI accounts. Therefore, account management will follow the guidelines set forth by UITS. Information concerning IUPUI student accounts may be accessed at the following links:

https://itaccounts.iu.edu/

https://password.iu.edu/

Disk Storage

The CNC provides all faculty and staff 1.0 GB of disk storage commonly referred to as the H: and G: drives. The H: drive is for your personal file storage. We also recommend that you consider storing files in OnCourse "Resource" area. The G:\ drive is for group or shared access. All faculty and staff have access to a folder named "Common" which is used for sharing files with employees of the school. One folder is named after your department/program. This is a group folder that is accessible only to your department/program. New folders may be requested. Folders within "Common" are mainly for committees and research.   The CNC recommends using the H:\ and G:\ drives for important documents as the CNC maintains routine backups of these drives. The local workstation hard drive, however, is not backed up by CNC. Backup of the documents on these local drives are typically your own responsibility.

A project to consolidate all storied data across all platforms into a reliable storage server is underway. Upon the deployment of this project, data from various revenues and platforms will be reconciled into a unified storage area.

MASSIVE DATA STORAGE SYSTEM (MDSS) PROVIDED BY UITS

If you're looking for a place to store your large files offline, MDSS may be an option for you. Check *http://storage.iu.edu/mdss_start.html* for more information on how to set up an account and how to use it. In addition, a shared, 30-gigabyte, 24-hour "scratch volume" called SlashTmp, is also available for use. The service is located at *https://www.slashtmp.iu.edu/*. Check *http://kb.iu.edu/data/angt.html* for more information on how to use SlashTmp.

Most of older computers have at least a 100 MB Zip drive, however, this should be phasing out in favor of the CD/DVD and flash USB drives that can be found in almost all CNC labs. Generally the best way to find and run applications will be through the WINDOWS Start Menu. Other major applications such as Internet Explorer or sending a Service Request may be accessed from icons on the desktop. The CNC Lab computers will use a special CNC Webpage as the Active Desktop.

UNIX ACCOUNT

The other type of account is your UNIX account. An account is only required if you need to work in UNIX. The CNC does maintain general UNIX systems and there are also UNIX systems maintained specifically for the BME, ECE and ME departments. Most UNIX accounts are now the same as the IUPUI accounts in that they use campus logon ID and password. Any E&T student, faculty or staff member may ask for a UNIX account.

SOME MAJOR SERVERS AVAILABLE

Windows 2003 Servers Available:

IN-ENGR-01	H, G & K Drives
IN-ENGR-02	H Drive for students
IN-ENGR-03	H Drive for students
IN-ENGR-DB	E&T Administrative Database
CNC24Hour	Terminal Servers Cluster

UNIX Servers Available :

etsun	etsun.engr.iupui.edu	Faculty Web Server, General Use
et	www.engr.iupui.edu	School Web Server
tnt	tnt.cadcam.iupui.edu	DNS Server
mesolv	mesolv.engr.iupui.edu	ME Server
ece	ece.engr.iupui.edu	General Use/ECE primary currently
ece2	vlsi.engr.iupui.edu	General Use/ECE primary currently
mercurious	mercurious.ece.iupui.edu	General Use/ECE primary currently, Research use
mensa	Mensa.sl.iupui.edu	Research Server

EMAIL

The School of Engineering and Technology uses IUPUI's Microsoft Exchange for email. This is part of the Active Directory Services (ADS) on campus. We opted to use Microsoft Outlook. Incorporation of the Calendar system and the advantages of the global directory maintain full integration with the Indiana University Systems.

Email Address

Your IUPUI email uses the ADS Logon ID with "@iupui.edu" appended to the end. For example, if you Logon ID is *nufac*, your email address would be *nufac@iupui.edu*.

Email Access

The most common method of access for email is the Outlook client. The CNC strongly recommends Microsoft Office suite, which includes the Outlook client. We encourage the use of the Microsoft Outlook because of the advantages of the shared directory, folder, calendar and task system. You can also access your email or your calendar via the WEB at the following URL:

http://www.exchange.iu.edu

You will be prompted for your Account ID and password.

General IUPUI email or student email can be accessed via the Web at:

Remote Access via VPN

A common question for the CNC is how to access email from home. Many of our employees have computers at home equipped with modems that are capable of accessing the IUPUI email. The campus network requires the use of a virtual private network (VPN) connection for secure access into your email. IUPUI VPN software is available by purchasing the IUWARE CDROM at the student bookstore for $5 or you may access the software via the web at _http://iuware.iu.edu_. The IUWARE CD also has other useful programs such as the Microsoft and Netscape Browsers, Adobe Acrobat Reader and the Secure Shell (SSH SFTP) access for UNIX. For further information on how to remotely access your IUPUI email, please refer to _http://uits.iu.edu/scripts/ose.cgi?amdz.help#internet_.

REMOTE ACCESS TO H: & G: DRIVE

Remote access to your H: Drive is available if you are running the IUPUI VPN network connection. This is taken care of for you if you are connecting via the IUPUI modem pool. If you are not dialing in via the IUPUI modem pool, you must first initiate a VPN connection in order to be able to access H: and G: drives. The location of the H: drive is: _\\in-engr-01.ads.iu.edu\logonid$_, where _logonid_ is your ADS logon account such as the example of _nufac_.   You may also need to add your ADS logon and password to your mapped drive if you are connecting from your home PC.

Follow the following steps to add your ADS user account and password to your mapped drive:

1. Right-click the `My Computer` icon, and then select `Map Network Drive...` .

2. In the "Drive:" field, select the letter you would like to assign to the drive. That letter will become the mapped drive. You will want to select H: if possible.

3. In the "Folder:" field, type the pathname for your CFS space:

    \\in-engr-01.ads.iu.edu\logonid$

    Replace `logonid` with your ADS logon account. Make sure to keep the $ at the end of the string. For example, our _nufac_ account would have _\\in-engr-01.ads.iu.edu\nufac$_.

4. Click the link `different user name`.

5. In the "User name:" field, type:

    ads\logonid

Replace `logonid` with your ADS logon id, such as nufac.

6. In the "Password:" field, type your IU [Network ID](#) password.

7. Click **OK**, then **Finish**.

If you need additional help on how to map a network drive, see *http://kb.indiana.edu/data/adyv.html*, which explains how to map drives for many versions of Windows. Your ADS Logon ID and password is needed to authenticate to all mapped resources.

The path to the **G:\ drive** is *\\in-engr-01.ads.iu.edu\groups*

Follow the following steps to connect to the G: Drive.

Follow the following steps to add your ADS user account and password to your mapped drive:

1. Right-click the **My Computer** icon, and then select **Map Network Drive...** .

2. In the "Drive:" field, select the letter you would like to assign to the drive. That letter will become the mapped drive. You will want to select G: if possible.

3. In the "Folder:" field, type the pathname for your CFS space:

   \\in-engr-01.ads.iu.edu\groups

4. Click the link **different user name**.

5. In the "User name:" field, type:

   ads\logonid

6. Replace `logonid` with your ADS logon id, such as nufac.

7. In the "Password:" field, type your IU [Network ID](#) password.

8. Click **OK**, then **Finish**.

CNC LABS

Open CNC Labs

ET002 and ET019 are the Open Labs for Engineering and Technology community. During the regular open hours, CNC HELP WINDOW, located in ET003, is staffed with CNC Student Staff offering application and computer related assistance.

Regular Open Hours for CNC HELP WINDOW

  8:00am to 11:00pm Monday-Friday
  8:00am to 5:00pm Saturday
  Noon to 5:00pm Sunday

Instructional CNC Labs

The following labs are maintained exclusively by the CNC for general-purpose Engineering and Technology computer instruction. Most applications are available in all labs. The following table gives a breakdown of most recent resources.

Lab	Room style	Computers in room	Processor Type/Speed	RAM(MB)	Monitor	Printer(s)
ET002	Open Lab	21 Systems	Various platforms Intel Core 2 Quad Q6600/2.4GHz (15) iMac (3), Sun Ray (3)	> 2000	17" and 20"	High speed shared printers
ET019	Open Lab	36 systems	Pentium_IV/3.2G	1000	17"	High speed shared printers
ET224	Classroom	32 systems	Pentium_IV/3.2G	1000	17"	LaserJet 4200
ET216	Classroom	24 systems	Pentium _IV/3.2G	2000	15"	LaserJet 5
ET321	Classroom	Student Laptop Lab	N/A	N/A	N/A	LaserJet 5
ET017	Classroom	24 systems	Pentium _IV/2.6G	2000	17" CRT	LaserJet 5100 and High speed shared printers
ET016	Classroom	30 systems	Pentium_IV/2.6G	512	19" CRT	High speed shared printers
ET329	LAB-Conf.	25 systems	Pentium_IV/1.8G	1000	17" CRT	LaserJet 4200 LaserJet 5100

ET010	Classroom	30 systems	Intel Core 2 Quad Q6600/2.4GHz	4000	19" CRT	High speed shared printers
ET015	Classroom	30 systems	Pentium_IV/2.6GHz	512	20"	High speed shared printers
ET014	Classroom	36 systems	Pentium_IV/3.2GHz	1000	17"	High speed shared printers
ET006	Classroom	30 systems	Pentium_IV/3.4GHz	1000	19"	High speed shared printers
Purdue House	Open to E&T Residents	4 systems	Intel Core 2 Quad Q6600/2.4GHz	2000	20"	Lexmark laser printer

All labs not at the ET lower level are locked by the CNC Student Staff approximately 1/2 hour before ET lower level closes.

CNC24Hour

The Computer Network Center offers a service for students and faculty called CNC24Hour. CNC24Hour allows students and faculty use of a specific select set of applications available from the Computer Network Center, 24 hours a day, anywhere you have Internet access. Using any Windows computer, you can access these applications hosted by the Computer Network Center as long as you have a valid University ID and are enrolled in classes at the Purdue School of Engineering and Technology, IUPUI. Currently, limited applications are available in this service as the CNC is deploying "virtual desktop" project. As soon as the project is completed, richer services will be available in CNC24Hour.

CNC24Hour currently uses the technologies available through Microsoft's Terminal Server to make this possible. These technologies allow us to install applications on a few computers here at CNC. The systems are setup as Terminal Servers allowing you to use the applications anywhere, anytime. The Remote Desktop Client is standard with Windows XP and it offers the most features when used from XP. If you are not on an XP system, then the client must be installed. This client provides the connection to the CNC24Hour Terminal Servers.

The REMOTE DESKTOP CLIENT is available for download at the link listed below, along with instructions for installation and use. This client is generally available on XP systems under Programs | Accessories | Communications.

__Download REMOTE DESKTOP CLIENT__

http://www.engr.iupui.edu/cnc/msrdpcli.exe

The complete address for your Remote Desktop connection is

cnc24hour.engr.iupui.edu

REQUESTING COMPUTER HELP

How do I get help with a CNC PC, lab, or account?
Send a Service Request by clicking on the service request icon which is located at the following Home Page:
http://www.engr.iupui.edu/cnc/cnchelp.html or by clicking on a similar icon on the PC Desktop Screen. We would like to encourage everyone to use the *Service Request* system. We have a new, efficient transfer of the Service Request information directly to our repair desk monitoring system; this is definitely the best and the assured way to receive timely service. Thank you for your cooperation. If you would like to request service by sending an email, use *ethelp@iupui.edu.*

Active Desktop

The Lab PC's will be setup with a desktop appearance with the Windows operating system. They will utilize the Active Desktop feature that uses a Web Page as the screen background. All of the common school links will be readily available as well as a convenient Text Message area for school announcements.

ONESTART IU PORTAL

OneStart is Indiana University's Web-based application portal. With OneStart, you can register for classes, sign up for direct deposit of your bursar refunds and travel reimbursements, and access Oncourse — all from one convenient location.

OneStart provides a common front door to online services at Indiana University campuses. OneStart offers easier and more direct access to the multitude of services available for students, faculty and staff. The goal for OneStart is to create a virtual campus community — a place to study, work, collaborate and have fun. For more information, go to: *https://onestart.iu.edu*

ONCOURSE

OnCourse is a supported application for all of the Indiana University campuses. The School of Engineering and Technology will continue to encourage the use of this valuable tool.

What is Oncourse?

Oncourse is an online course management application that allows faculty and students to create, integrate, use and maintain Web-based teaching and learning resources. For students, Oncourse presents learning tools in a single, consistent Web interface. For faculty, Oncourse provides a framework for building teaching environments that can include multimedia content and a wide range of online tools without requiring users to know programming or HTML. Oncourse is a component in Indiana University's strategic plan to create a Web-based teaching and learning environment, particularly in support of distributed education.

Getting Started with Oncourse
We recommend that you go to the Oncourse Web site at *http://oncourse.iu.edu* in order to take advantage of the startup and help opportunities.

CENTER FOR TEACHING AND LEARNING

The Center for Teaching & Learning, one of the work units in the **Office for Professional Development** (*http://www.center.iupui.edu/*) opened in November 1994 dedicated to the professional development of IUPUI faculty. The Center exists to provide faculty with assistance in their quest for self-improvement. More specifically, it is designed to provide an opportunity to explore new avenues of teaching; develop new courses or redesign existing ones; test new methods and delivery systems; create new ways to utilize technology to enrich teaching, research and service; and encourage discussion and sharing of these methodologies.

They welcome walk-ins, although reservations are encouraged so that consultants and resources may be ready for your project or visit. Additionally, the Center staff will tailor consultations/workshops to the specific needs of IUPUI schools or departments, and if desired, will hold them at your location.

CNC STAFF

William Lin, Director of the Computer Network Center
        Office: ET 003A
        Phone: 317.278.2144
        Email: wilin@iupui.edu

Marjorie Aprile, Manager of Support Services
        Office: ET 003C
        Phone : 317.274.8385
        Email: maprile@iupui.edu

Odessa Cobb, Support Technician
        Office: ET 003
        Phone: 317.278.8365
        Email: oicobb@iupui.edu

Donald Krajewski, Manager of Academic Computing
        Office: ET 003B
        Phone: 317.274.8988
        Email: dkrajews@iupui.edu

Emil Luca, Computer Support Specialist
        Office ET 003E
        Phone 317.278.3310
        Email: eluca@iupui.edu

Rob Meagher, Manager of Research Computing
        Office ET 003D
        Phone 317.278.3300
        Email: rmeagher@iupui.edu

Haishan Wang, Database and Web Administrator
        Office: ET 003F
        Phone: 317.274.9720
        Email: hw4@iupui.edu

For more information about CNC, please visit *http://www.engr.iupui.edu/cnc*