NUIT Tech Talk:
Protecting Privacy – Safe Disposal of Computers and Personal Private Information

March 5, 2008

Christopher J. Hurless, Senior Distributed Support Specialist

NUIT Technology Support Services
Agenda

• Safe disposal practices for computers and information:
  – Removing files and folders
  – Disposing of computers
  – Disposing of other electronic devices
• Guidelines for disposing of University-owned computers and equipment
• Northwestern’s Computer and Peripherals Recycling Program
The Problem

• 5 or more toxic materials in most electronic devices:
  – Lead, Mercury, Cadmium, Hexavalent Chromium, Brominated Flame retardants

• In normal use, a computer, cell phone, or other electronic device containing toxic materials is not dangerous; however, we can create risks to the environment and to our health when we dispose of these electronic devices
The Hazards

- Toxic Metals can accumulate in various organs, interfere with normal function of the body’s cells, and cause illness and in severe cases, death
- Exposure can occur through inhalation, ingestion of soil and food, and chromium can also be absorbed through the skin
- Toxic metals are persistent, meaning that they are not naturally broken down in the environment and remain toxic indefinitely
Safe Disposal Techniques
Removing Files and Folders

• Deleting files is not enough
• File-shredding is best way to permanently destroy unwanted information on your computer
  – Shredding is file-specific
  – Remember… data may continue to exist in other locations on your computer

• File-shredding products:
  • SecureClean ($)
  • Eraser (free)
Safely Disposing of Computers

• Reformatting is not enough
• There are two ways to permanently remove information from a computer:
  – Clean the hard disk using software
  – Physically shred hard disk
    • Tedious
    • Time-consuming
    • Physical shredders are available at office stores and online
Hard Disk Cleaning

- Hard disk cleaning ("wiping") is the best way to remove information from a computer
  - Works like a file-shredder, but destroys all information on the disk
  - Overwrites every block of information with data.
- Use industry standard "wiping" process
  - Department of Defense (DoD) standard (5220.22-M)
- Products:
  - White Canyon Wipe Drive ($)
  - Active KillDisk (free)
  - DBAN (open source)
Disposing of Information in Other Formats

- Handheld devices
  - Hard resets
  - Special tools
- iPods
- Media
DSS Can Help!

• Services:
  – Installation of shredder software
  – Preparation of computers for disposal or redeployment

• Call 847-491-HELP (4357)
  – Hours: Monday – Friday, 8:30 a.m. - 5:00 p.m.

• Users can also request service via the DSS Online Help Request Form at any time
  – Expect a response within 24 hours
  – www.tss.northwestern.edu/DSS/Help
Online Help Request Form

This form can be used to request on-site assistance from Distributed Support Services (DSS). If the assistance requested requires a visit, there will be a charge unless your department has contracted for services from DSS. See the DSS Fee Schedule for more detailed information. After you submit this form, you will be contacted by a DSS consultant. DSS business hours are 9am-5pm, Monday through Friday. Support is provided on a first come, first served basis. Your request for on-site help will be given to the next available consultant, and they will contact you directly.

If you are in...
- School of Communication
- Lurie Cancer Center or Center for Genetic Medicine
- 1800 Sherman
- American Bar Foundation

If you are not in these schools or departments but your school or department does have a contract with DSS, please visit your help request page at: contract-help.northwestern.edu.

Please note that first time customers will be given a document that outlines our services. This document must be signed acknowledging its receipt in order for DSS to provide service.

<table>
<thead>
<tr>
<th>Contact Information:</th>
<th>Problem Description:</th>
</tr>
</thead>
<tbody>
<tr>
<td>First Name</td>
<td>Operating System</td>
</tr>
<tr>
<td>Last Name</td>
<td>please choose...</td>
</tr>
<tr>
<td>Email</td>
<td>Machine Location</td>
</tr>
<tr>
<td>@northwestern.edu</td>
<td>(Building, floor, room)</td>
</tr>
<tr>
<td>Phone</td>
<td>what problems are you having with this machine?</td>
</tr>
</tbody>
</table>

www.tss.northwestern.edu/DSS/Help
Questions?
Guidelines for Disposing of University-owned Computers and Equipment
Policy: Disposal of Northwestern University Computers

Disposal of Northwestern University Computers

Audience:
All members of the Northwestern Community who utilize University-owned computers.

Definition:
University Services offers a service to formally dispose of Northwestern University (NU) computers and peripherals. This service has been designed to help NU meet the Environmental Protection Agency (EPA) regulations for equipment disposal. Information on this service can be found at http://www.it.northwestern.edu/computer_pickup/index.html.

Northwestern University Information Technology (NUIT) recommends utilizing this service as it also offers data removal for a fee. For equipment acquired using federal funds, you must get approval of Accounting Services for Research and Sponsored Programs (ASRSP) for disposal. Information on ASRSP can be found at http://www.northwestern.edu/asrsp.

Equipment with inventory tags (or cost exceeding $5,000) must be reported to the Accounting Services Equipment Inventory Coordinator, Robert Glick (rglick@northwestern.edu).

Policy Statement:
It is the responsibility of the department or individual in possession of NU owned computer(s) to ensure that data has been properly removed from the hard drives of computers before removal or redeployment by one of the following two methods:

- For computers that are slated to be removed from NU ownership, please utilize University Services’ Computer and Peripherals Recycling Program to handle the proper removal of data and recycling of hardware. This program is further detailed in the Program Summary section below.

www.it.northwestern.edu/policies/disposal.html
Removing Data

- You are responsible for making certain that University computers in your possession are “wiped” before disposing of them.
- If a computer is being redeployed to another employee or department, contact Distributed Support Services or your technical support person.
- If a computer is being removed from University ownership, use the Computer and Peripheral Recycling Program.
Software and Licenses

• If a computer will be redistributed, original operating system installation disks should be passed along with it
• In most cases, NUIT Site-Licensed Software should be retained by the original user
• These licenses generally do not transfer with computers where they are installed
Special Considerations

- If equipment was purchased with federal funds, get approval from the Accounting Services for Research and Sponsored Programs (ASRSP) for disposal
  - See [http://www.northwestern.edu/asrsp/](http://www.northwestern.edu/asrsp/) for details

- If equipment has an inventory tag, report it to the Accounting Services Equipment Inventory Coordinator
  - E-mail r-glick@northwestern.edu
Computer and Peripherals Recycling Program

Northwestern University is committed to lessening our carbon footprint and being part of the solution. In an effort to keep computers out of the University's solid waste stream, University Computing offers a computer recycling program, or “ecycling,” for faculty, staff, students, and commercial tenants.

Why Recycle?
Electronic equipment contains metals and other materials that can be hazardous to human health and the environment if they are not properly managed.

Are There Really That Many Computers Being Thrown Away?
According to various reports, electronics comprise approximately 1-4 percent of the municipal solid waste stream. With the National Safety Council projecting that nearly 250 million computers will become obsolete in the next five years, the number of computers that need to be disposed of will only continue to grow.

What Does a Computer Have to Do With the Environment?
Computers contain a mixture of rare earth metals and other materials that are hazardous to human health and the environment. In addition, lead, a hazardous material, is contained in computer monitors. For more information on the environmental impact of electronics, visit the EPA website.
Computer and Peripherals Recycling Program

• Since 2004, University Services has been picking up computers, monitors, printers, and scanners from both campuses via the Computer and Peripherals Recycling Program.

• The 2008 average is about 300 units in Evanston and 70 units in Chicago per month; the overall volume increases each year.
Recycle It!

• The recycling service offers data removal at no charge; University services removes the hard drive and literally destroys it.
• Equipment is then picked up by Classic Computer Recovery, Inc. where it is either refurbished or demanufactured.
• Recycling helps Northwestern meet Environmental Protection Agency (EPA) guidelines for equipment disposal.
• It’s easy! Just fill out the pick-up form.
Pick-up Request Form

Computer & Peripherals Recycling Program

NOTE: For equipment acquired using federal funds, you must get approval from Accounting Services for Research and Sponsored Programs (ASSRP) for disposal. Information on ASSRP disposal policies can be found at http://www.northwestern.edu/assrp/spequipment.html

Equipment with inventory tags (e.g., cost exceeding $5,000) must be reported to the Accounting Services Equipment Inventory Coordinator, Robert Ciosek.

Name: 
Department: 
Address: 
Campus: Evanston
Phone Number: 
Email Address: 

Please enter the quantity of items you would like picked up:
- CPU(s)
- Monitor
- Peripherals (mouse, keyboard, CDs, speakers)
- Printer
- Scanner
- Other:

Pickup Location: 

Submit Clear Form

You will be sent an email confirming pickup time and date.

www.univsvcs.northwestern.edu/ecycle/form.htm
Other Recycling Resources

• For non-University mobile devices:
  – Check with your service provider for recycling options

• For non-University computers and equipment:
  – Check with the computer manufacturer for recycling programs
  – Check with your county of residence for recycling options that might be available
Questions?
Visit the NUIT Web Site!

www.it.northwestern.edu
Contact Us

847-491-HELP (4357)
or
consultant@northwestern.edu
Upcoming Tech Talks

April 23: Spring Cleaning: Remembering the Technology?

May 14: Set Yourself to “Connected” This Summer

Same locations, 12:30 – 1:15 p.m.