

# Introduction to Facilities 2011

<http://www.cs.cmu.edu/~help/introduction/index.html>

August, 2011

Tod Pike

# Computer Support Groups

- SCS Computing Facilities (For SCS only)
  - Help Desk: Gates/Hillman 4203
  - [help@cs.cmu.edu](mailto:help@cs.cmu.edu) or 412-268-4231
  - 9 am - 5 pm, Monday - Friday
- CMU Computing Services (All CMU affiliates)
  - Andrew accounts
  - Clusters
  - CMU Computer Store
  - [advisor@andrew.cmu.edu](mailto:advisor@andrew.cmu.edu) or
  - Call the CMU Help Center at 412-268-HELP

# What We Do

- SCS Help Desk - Customer Service (including walk-in, phone and e-mail requests)
- Printing - Toner, Paper, and Repairs
- Hardware repairs for CMU owned assets
- Software licensing and support
- Networking (CS buildings), Email
- Purchasing and Property Management
- Network Backups
- Anything else related to SCS computing

# What We Don't Do

- Maintain Personally Owned Equipment
- Support non-provided software
- Cell Phones or Pagers (limited support)
- PDA's/Smart phones (limited support)
- Wireless networking (Campus supports)

# Other Support

- Contact skees@cs.cmu.edu
  - Furniture
  - Light bulbs
  - Telephones
  - Keys
  - Ergonomic issues
  - Other non-urgent non-computer things
- Campus police: 412-268-2323

# Computing Facilities Groups

Facilities Group	Functions
Help Desk (Kelly Mullins)	First-line support, documentation/ Help pages, purchasing
PC Engineering (Chris Clune)	Windows & Macintosh systems
UNIX Engineering (Mark Held)	Linux & Solaris systems
System Security (Clauss Strauch)	Network and computer security
Software Maintenance (Michael Nikithser)	Third-tier support, software maintenance & development
Networking (Mark Puskar)	Wired Networking in SCS buildings

# Operating Systems Supported

- Windows 7. Vista, XP still available, in use on some systems
- Ubuntu (both fully managed and self managed)
- Fedora 14
- Solaris
- MacOS Snow Leopard (Lion soon)

# Your CS Supported Workstation

- If it breaks, we'll fix it.
  - Do not make hardware repairs/swaps/upgrades yourself
    - It may void the warranty, among other reasons
- Do not change the IP address
- Do not relocate your machine
  - Contact [help@cs.cmu.edu](mailto:help@cs.cmu.edu) and we'll move it for you
- Do not turn it off at the end of the day
  - Backups and Software updates will NOT happen
- If you customize it and break it
  - We will re-install the facilitated environment
  - We will NOT debug your customizations
- It is CMU property, not your property
  - Don't give it to someone else

# Your SCS Supported Workstation(con't)

- UPS stays with office
- Plug machine into UPS
- Beeping UPS will indicate a bad battery or loss of input power
- We will replace batteries
  - contact [help@cs.cmu.edu](mailto:help@cs.cmu.edu)

# Accounts and Passwords

All logins use the same username, but the password varies:

Login Type	Password used
Linux	Kerberos
Windows	SCS Windows domain
Macintosh	Local Macintosh password

# Other Kerberos Instances

- CMU Specific
- Used to limit damage in case password is compromised
- Create and change with instance management tool  
<https://webiso.cs.cmu.edu/instance>

Instance	Use
/mail	Reading SCS mailbox
/root	Becoming root in Linux
/remote	VPN & ipass

# Your Andrew account

- To see that you have an account  
finger first.lastname@andrew.cmu.edu
- Password is probably first 8 digits of your student ID  
(change it!)
- To change your Andrew mail forwarding:  
Use Andrew “forward” command or  
CMU Web portal (<http://my.cmu.edu>)
- Use a cluster machine or ssh to unix.andrew.cmu.edu
- Your Andrew account will work on virtually all Andrew machines

# The SCS Macintosh Environment

- Your login account is specially created
- Don't reinstall your machine
- Your account has admin privileges
- Logins are local to the Mac
- Please select a unique password when prompted
- Most software pre-installed
- Lion support coming soon

# The SCS Unix environment

- Ubuntu 10.04 LTS is the supported platform, but two versions available:
  - Fully managed (full integration with SCS environment)
  - Self managed (minimal packages to support core functions)
- All supported platforms use AFS for central file storage
  - AFS reference <http://www.cs.cmu.edu/~help/afs/index.html>
- Some configuration files globally maintained
- You can install your own packages and customize

Before changing anything

- Read [http://www.cs.cmu.edu/~help/unix\\_linux/index.html](http://www.cs.cmu.edu/~help/unix_linux/index.html)

# AFS File Storage

- Main central file storage in SCS (and Andrew)
- Maximum quota is 10 GB per user volume
- Use jeeves to raise your quota
  - If you run out of quota when writing a file you lose
- AFS permissions are not the same as Unix permissions
  - Access is generally per-directory
  - Your top-level directory is readable by default
- Accessible from Windows Vista, MacOS
  - Via OpenAFS client (preinstalled on Windows)

# Corvid

## (SCS E-Mail Environment)

- You may have a mailbox on our Corvid mail server (if requested)
- Most IMAP and POP mail clients will work
  - supported clients: Outlook, Thunderbird, Evolution, Pine, OS X “Mail”
  - server is `imap.srv.cs.cmu.edu`
  - 2GB mail quota (easily increased)
- Use webmail client for remote mail access
  - <http://webmail.cs.cmu.edu>
  - use either your UNIX or /mail kerberos password to login
- All mail is backed up each night

# Corvid Mail Features

- SPAM detection and processing
  - Tagged SPAM refiled into SPAM folder
  - Automatically deleted after 30 days (this can be adjusted or turned off)
  - We do not forward SPAM
- Greylisting
  - Dramatically reduces SPAM that gets by the filters
  - One time delay for mail from a particular user to you

# SCS Mail Addressing

- You can use either of the following formats to address mail:
  - “Userid”@cs.cmu.edu (preferred)
  - Or [firstname.lastname@cs.cmu.edu](mailto:firstname.lastname@cs.cmu.edu)
- To find addresses use LDAP lookup:  
<http://www.fac.cs.cmu.edu/corvid/lookup>
- You can set up a cmu.edu mailing address
- Forward your Andrew mail to SCS
  - These are two separate mail drops

# Backups

- We do nightly network backups of:
  - Unix (partitioned for consistent backups, preferably less than 50 GB)
  - Windows (100 GB max per machine with 50 GB partitions)
  - Macintosh 10.X (100GB max per machine with 50 GB partitions)
  - AFS
- Backups are not automatic, they are a separate service
- If dual-boot, only the OS that is on the network and running overnight will be backed up
- Keep your machine running and on the network overnight
- For Windows and Mac users:
  - Close your apps overnight
  - Open files will not get backed up!
- Laptops are backed up during the day when they are placed on the wired network

# Getting Software

- On Unix:
  - Most software is standard Ubuntu 10.04 LTS
  - Locally provided software in /usr/cs/bin
  - Licensed software installed from media
- On Windows:
  - Monolith is the software distribution server that houses our baseline software install packages
  - Browse \\Monolith\PC\_DIST to see what's there
- CMU web portal is the distribution server for many Campus licensed packages
  - <http://my.cmu.edu>
- On Macs:
  - Most software available from <http://my.cmu.edu>
- Pick up the install media from the Help Desk: GHC 6109

# Licensed Software

- Contact help@cs before buying anything
  - We can often get things much cheaper
- Send CMU charge number with purchase request to help@cs
- Don't pirate software
- SCS software Licensing information:
  - <http://www.cmu.edu/computing/software/license-office/licenses/index.html>
- Computing Services licensing information:
  - <http://www.cmu.edu/computing/software/Index.html>

# Printing

- Complete Printing Information:
  - <http://www.cs.cmu.edu/~help/printing/>
- Many B/W Printers, Fewer Color
- Use color printers only when necessary
  - Color printers are for color printing
  - Expensive - \$0.50/page
- Poster printers available
- Preview your output before printing
- Use SCS printers for SCS work
- Toner Replacement, Printer Problems
  - Call SCS Operations (x8-2608) at anytime

# Terminal Services

- Provides casual access to UNIX and Windows environments
- For access to UNIX, use  
“ssh linux.gp.cs.cmu.edu”
- For access to Windows, use  
“/usr/local/bin/ts std”
- For more information, see:  
[http://www.cs.cmu.edu/~help/unix\\_linux/terminal\\_services.html](http://www.cs.cmu.edu/~help/unix_linux/terminal_services.html)

# Connecting to the SCS Network

- Wired Ethernet
  - <http://www.cs.cmu.edu/~help/networking/netregister.html>
  - Switched 100 Mb connection
- VPN Service
  - Client for Windows/Mac/Linux
  - Use /remote instance
- Remote Access with iPass
  - iPass client for Window/Mac
  - 180 countries
  - T-Mobile Hot Spots (not local ones!)
  - Traveling only
- Wireless
  - Available through Computing Services
  - <http://www.cs.cmu.edu/~help/networking/wireless.html>
    - Not intended to be primary means of network access
    - Backups don't happen over wireless

# Internet Connectivity

- Commodity Internet
  - Use CMU's Internet connection
  - 175 Mb in each direction
  - Computing Services enforces bandwidth quotas
- Internet 2
  - OC-48 connection (2.488 Gbps)
  - Computing Services does not enforce bandwidth quotas for Internet 2

# Security and the SCS Network

- No firewall, with the exception of Vista built-in
  - We are constantly scanned for security holes
  - A few Windows ports are blocked (139, 445, etc)
- Top sources of break-ins are weak passwords, unpatched PC software and unpatched or poorly configured web applications
- For Windows PCs:
  - Symantec Endpoint Protection installed on all Windows machines, updated regularly
  - We manage Microsoft software updates on PCs in SCS domain
    - Patches will be automatically installed with prompt for a reboot
    - Read e-mail to SCS-ALL – notifications on security problems go there
- For Linux:
  - We automatically deploy security and other critical patches
- What to do?
  - Choose strong passwords
  - Keep all software up to date with patches and current versions

# Acceptable use of the facility

- No commercial use
- Do not hack or scan other machines (even if they are scanning you), or violate people's privacy
- Just because something is readable doesn't mean it's acceptable to do so
- You are responsible for abuse of your machine caused by local modifications or account creation
- Web servers should not provide unrestricted access to AFS
- File sharing software should not have writable anonymous areas for download

# Acceptable use of the facility (cont.)

- Keep security patches up-to-date if you install or maintain software
- Do not create accounts for untrusted people
- Be reasonable in use of shared resources
  - Printers
  - Shared Unix machines
- Do not hook anything up to the network without netregistering it with Facilities
  - <http://www.cs.cmu.edu/~help/networking/netregister.html>
- Do not consume excessive bandwidth
  - Distributing movies, etc
- Network use policy
  - [http://www.cs.cmu.edu/~help/networking/net\\_use.html](http://www.cs.cmu.edu/~help/networking/net_use.html)

# Sources of Information

- SCS Facilities Help Pages
  - <http://www.cs.cmu.edu/~help>
  - Useful reading
  - Check for new information/updates
- Andrew Computing Services
  - <http://www.cmu.edu/computing/>
- Zephyr: instant messenger for Unix
  - Frequently Zephyred questions and Zephyr archive
    - <http://zarchive.srv.cs.cmu.edu/fzq/>
- Your colleagues

# Getting Help from SCS Facilities

- Send mail to [help@cs.cmu.edu](mailto:help@cs.cmu.edu)
  - Include all relevant information
    - Hostname, asset number, OS, machine location
    - Brief problem description
    - How to contact you (if email is part of the problem)
    - Put URGENT in title if problem is time critical
      - Best to call if it's an emergency
    - Avoid sending mail to individual staff members
      - ...people go on vacation...
- Call the SCS Help Center (x8-4231), 9-5, M-F.
  - Evenings/weekends, forwarded to SCS Operations (x8-2608)
- Visit the SCS Help Center at Wean 3613