

Introduction to Facilities 2009

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

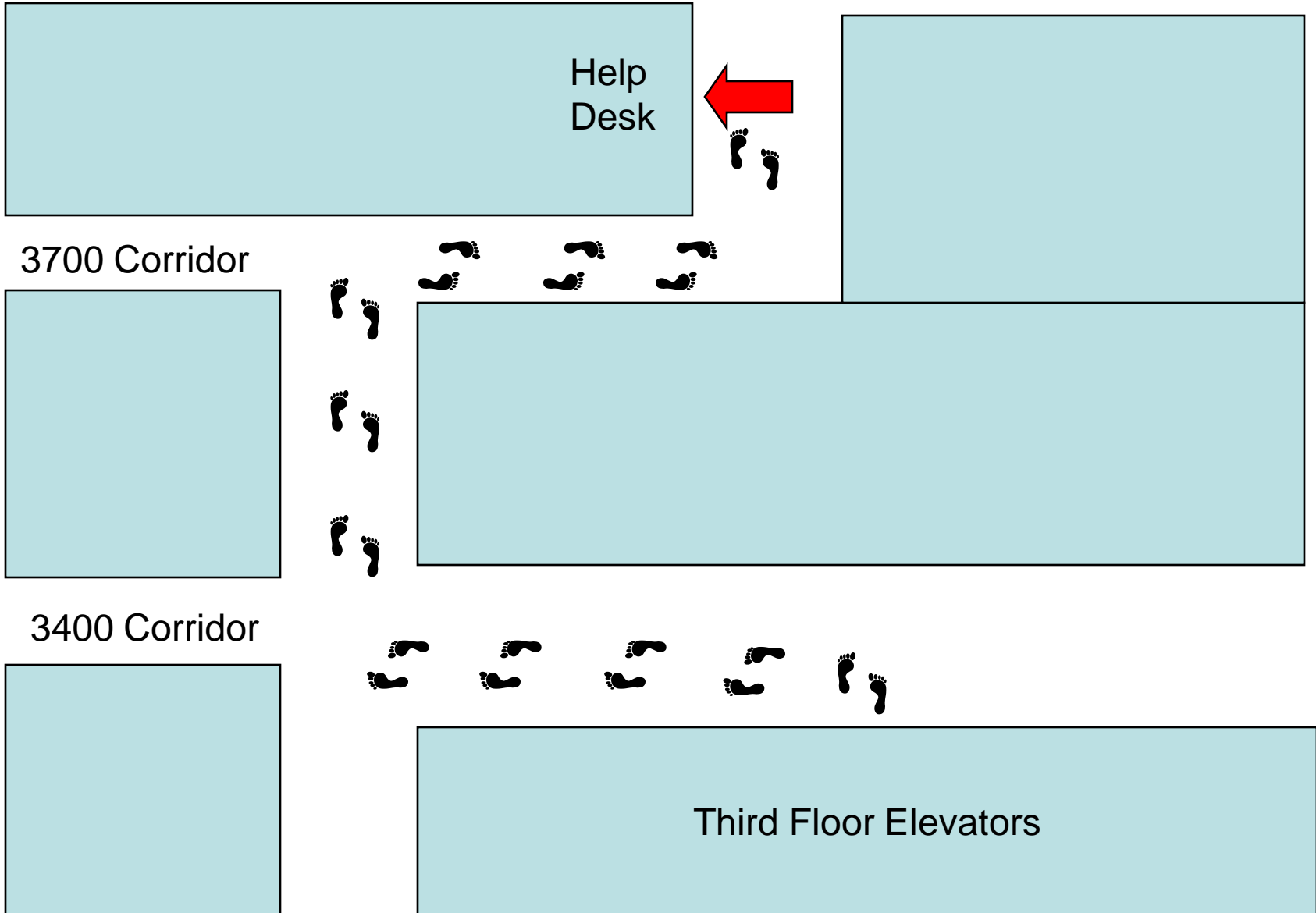
August, 2009

Tod Pike

Main Computer Support Groups

- SCS Computing Facilities
 - Wean Hall 3613 (for now!)
 - help@cs.cmu.edu or 412-268-4231
 - 9 am - 5 pm, Monday - Friday
- CMU Computing Services
 - Andrew accounts
 - Clusters
 - CMU Computer Store
 - advisor@andrew.cmu.edu or
 - Call the CMU Help Center at 412-268-HELP

How to Find Us – WEH 3613



What We Do

- SCS Help Desk, documentation
- 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

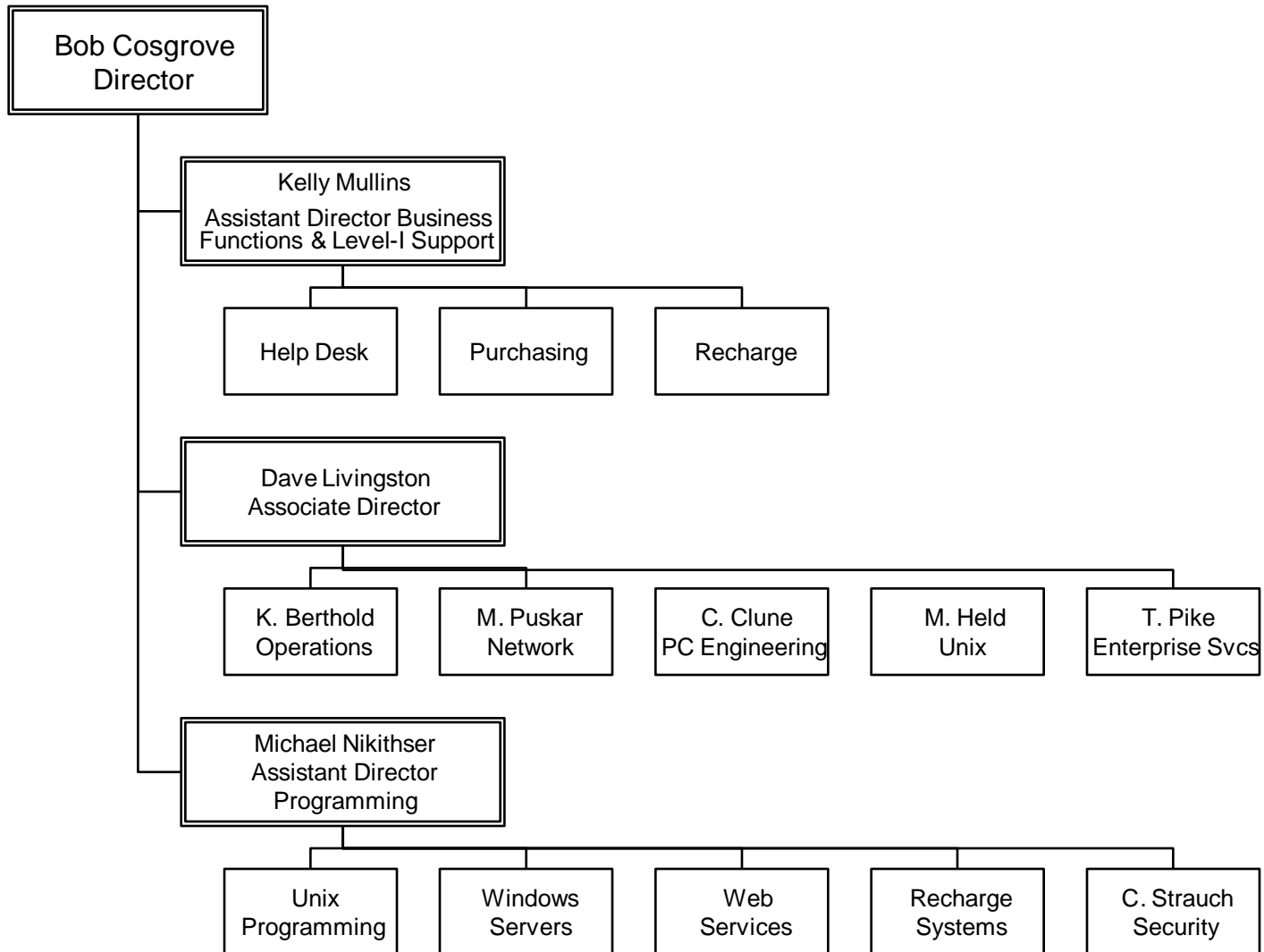
What We Don't Do

- Maintain Personally Owned Equipment
- Support non-provided software
- Cell Phones or Pagers
- PDA's

Other Support

- Contact skees@cs.cmu.edu
- Furniture
- Light bulbs
- Telephones
- Keys
- Ergonomic issues
- Other non-computer things

Computing Facilities, SCS



Operating Systems Supported

- Windows Vista
 - XP still available, in use on some systems
- Fedora Core 5, Fedora 7, Fedora 10
- Solaris
- MacOS 10.5.8
- Older versions still around...

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, we will do it for you
 - Contact 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

Accounts and Passwords

- You should already have:
 - An SCS Kerberos identity with password
 - An Andrew account and password
 - Mailbox on our Corvid system
 - Mailbox on Andrew mail system
 - SCS Windows domain account
 - To login to Windows hosts in the SCS domain
 - Enter your UserID and Windows password
 - To change your password:
 - Press ctrl + alt + del after logging in and choose the change password button

Other Kerberos Instances

- SCS /mail Kerberos instance password
 - To access SCS Corvid services through mail clients
- A SCS /root Kerberos instance password
 - For root access to Unix hosts
- A SCS /remote Kerberos instance password
 - For dialing into SCS from remote sites and VPN
- Create and change with instance management tool (Help Desk must create /root)

<https://webiso.cs.cmu.edu/instance>

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 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
- Please provide feedback concerning the use of Mac OS X in the SCS environment

The SCS Unix environment

- We've made many modifications to "standard" Unix:
 - Modified vendor login, su, telnet, rsh, and ssh; these utilities were changed to support our Kerberos authentication and authorization methods.
- All supported platforms use AFS for central file storage
 - AFS reference <http://www.cs.cmu.edu/~help/afs/index.html>
- SUP and Depot for software distribution
- Many configuration files globally maintained
- You can customize your system, will need /root to do so

Before changing anything

- Read 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 have a mailbox on our Corvid mail server
- 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
- 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)
- 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)
 - Full 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
- 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
 - By request and they are backed up during the day when they are placed on the wired network

Getting Software

- On Unix:
 - Most software (aka "misc collections") is volunteer maintained
 - Volunteers needed!!
 - Located in /usr/local/bin (depoted from AFS)
- 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

Misc. Maintainers

- What misc. maintainers do:
 - Distribute and update software collections
 - Help others with using software
- Why be a misc. maintainer?
 - To get experience in managing software
 - To share software with colleagues in SCS

For more info or to volunteer contact help@cs.cmu.edu

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.cs.cmu.edu/~help/software_licensing
- 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
- Preview your output before printing
- Use SCS printers for SCS work
- Not for your new company
- 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

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
 - 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
 - Limit of two (2) Gigabytes of either inbound (from the internet) or outbound (to the internet) bandwidth in a single day.
- 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

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/>
- Newsgroups
 - cmu.cs.scs
 - cmu.cs.general for non-official questions/announcements/etc
- Your colleagues

Getting Help from SCS Facilities

- Send mail to 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