Computer Systems Lab

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Computer Sciences Department

New Grad Student Orientation
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Welcome!

There is too much to tell you today, but I'll try and cover enough to get you started.
The Computer Systems Lab

Our Mission:

Support the effective, efficient and secure use of Information Technology by Students, Faculty and Staff in Teaching, Learning, Research and Public Service
Who We Are

- 6 full-time staff
  - David Parter, Director
  - Jacob Ela
  - James Babb
  - Jerel Mackey
  - Tim Czerwonka
  - John Perkins

- 10-12 undergraduate students
  - 10-30 hours/week
  - School work comes first – especially at exam time
What We Do

- Develop and support computing facilities for the Computer Sciences Department
  - Research, Instruction and Administration
What We Do

- Desktop workstations
- Instructional labs
- Servers
- Services (backups, software licenses, ...)
- Computer and data security

- Infrastructure
- Special projects
- Other computing facilities
- Computer-related purchasing
Contacts & Information

• Email: lab@cs.wisc.edu
  • Ticket/Request tracking system
• Service Desk: room 2350 CS
• Phone: 262-2389
• Office Hours:
  • 8-12, 1-5 M-F (typical)
• csl.cs.wisc.edu
Your CS Account

• Unified account for most CSL services: Linux, Windows, Mail, etc
  • Single username & password
  • NOT the same as your campus NETID
• username@cs.wisc.edu email address
We Take Security Seriously

- Devote a significant effort to security issues
- Monitor security mailing lists
- Up-to-date patches
- Maintain secure configurations
- Goal: Protect our users' privacy, data integrity, resources
- Allow flexibility appropriate for a research university Computer Sciences department
Keeping Your Account Secure

- Do NOT share your password with anyone
- Do NOT tell the lab your password
  - We will NEVER ask for your password
  - Beware of “phishing” email or web sites that ask for your username and password
- Do NOT use the same password for web sites and other accounts
Keeping Your Account Secure

- Log out when not using your workstation & when you leave
- Check ACLs to assure correct access
- Report anything suspicious to lab@cs.wisc.edu
Keeping Your Laptop Secure

- Free anti-virus software from DoIT
- Stay up-to-date with software and operating system patches and upgrades
- Use a good password on your laptop
  - Not the same password
Keeping Your Laptop Secure

- Use Department VPN or SSH tunnel for remote access
  - Don't trust wireless networks
- Don't leave your laptop in your office (or anywhere else...)
Activating your CS account

- https://csl.cs.wisc.edu
- *Activate Account* link at top of page
Activating your CS account

- Authenticate with your Campus NetID
Activating your CS account

- Agree to Appropriate Use policies
- Pick your user name: up to 8 characters
  - Pick your user name well
  - Have a second choice ready
  - User name is also your email address and public identity
    - Used by fellow students, faculty, prospective employers, ...
- Can't be changed once set
Activating your CS account

- Set your password
  - Minimum 8 characters
  - Minimum 3 character sets:
    - lower case letters
    - UPPER case letters
    - Numbers
    - Symbols
Activating your CS account

- Initial access to instructional workstations
  - Within 5 minutes of account activation
- Change password via CSL web site or on Linux or Windows
Supported Operating Systems: Linux

- Redhat Enterprise Linux 6 (64-bit only)
- Remote Access
  - SSH
  - VNC
    - via Department VPN when outside CS network
Supported Operating Systems: Windows Desktops

- Windows 7
  - 64-bit only
  - Windows File Server
  - Also AFS file system

- Remote Access
  - Remote Desktop Server
  - via Department VPN when outside CS network
Supported Operating Systems: Windows Servers

- Windows Server 2008
  - Windows infrastructure
  - Research servers if needed
Supported Operating Systems: Apple OSX

- OSX 10.7 (Lion)
- Macintosh instructional lab (room 1370)
- Support currently limited to instructional needs
Filesystems

- AFS
  - Linux home directories, project space, software
  - Available on Windows 7
  - AFS Access Control Lists/Permissions are NOT the same as Unix permissions

- Windows NTFS file server
  - Windows 7 roaming profiles & default file locations

- Faculty can request project space at no cost
Backups

- Backups are not archives
  - Backups are for recovery from catastrophic failure
  - Backups made after midnight each day
    - If snapshots are supported, taken just after midnight
  - Retained for 30-60 days
    - Depending on specifics of backup cycle – assume 30 days
- If needed, request a restore via web form
Archives

• Archives are to save specific versions and data sets
  • If you need an archive, you need to save the data
  • No specific archive service
  • If you need help, ask us
Backup Coverage

- AFS
  - Home directories & project space
  - NOT including /common/tmp
- Windows file server
  - User profiles & file space, project space
Backup Coverage

- IMAP mail server: INBOX, folders
- Linux workstations and servers:
  - Special file systems on request
  - DOES NOT INCLUDE /scratch or /tmp
- Windows workstations
  - Local disk for catastrophic failure recovery
- Instructional workstations:
  - No local file backups
CSL Networks

- Ethernet to all desktops and servers
  - 10G Ethernet for some servers
- Border and internal firewalls
- Special networks for research projects
CSL Networks

• Border and internal firewalls
  • Linux desktop networks:
    – SSH only from outside CS networks
    – Use Department VPN for other access
  • Windows desktop networks:
    – Use Department VPN for Remote Desktop and other access
  • Servers restricted to offered services

• All networks are actively managed
  • Can't connect a computer to the network on your own (except WiFi)
CSL Wireless Networks

- Covers all CS areas of CS building
  - All of Unit III (tower)
  - 1st floor classrooms & labs
  - Condor area Unit II
- Firewall restricts inbound traffic
- Printing to CS Printers
  - See CSL web pages for more details
COMPSCI Wireless Networks

- 802.1x (supported by most WIFI devices)
- SSID:
  - COMPSCI-5GHz
  - COMPSCI (2.4Ghz)
- Security: WPA2-Enterprise
- Authentication: CS user name & password
- See CSL web site for details
COMPSCI-OPEN Wireless Network

- For devices that can not use 802.1X
- SSID: COMPSCI-OPEN
- No Network Encryption
  - Strongly encouraged to use CS Department VPN
- Authentication: CS user name and password via web browser
CS Email

- `username@cs.wisc.edu`
- IMAP server: `imap.cs.wisc.edu`
- Thunderbird IMAP client (default)
- Use any IMAP client on your phone or laptop
CS Web Mail Interface

- webmail.cs.wisc.edu
- Not recommended for regular use – good when traveling, away from laptop/desktop, etc
- Use webmail site to manage filters, anti-spam settings, vacation messages and forwards
CS Email: SPAM, Phishing and other bad stuff

- virus and other malware detection at mail gateways
  - Infected and malicious messages are deleted without notice
- Anti-SPAM: suspicious messages are greylisted at mail gateways
- Custom Anti-SPAM: SpamAssassin
  - Configure via web mail site
Don't Fall for “Phishing” attacks

- We will NEVER ask for your password
- ALL CS and UW websites that require authentication or handle sensitive data use a legitimate SSL certificate
- www.cio.wisc.edu/security-scams.aspx
Instructional Labs

- Linux, Windows and Mac labs
- 1st Floor CS Building
- 7AM – 1AM every day when CS building open
- Priority for instructional work – Not for research projects
- Be considerate of your fellow students
Instructional Labs: Linux

- “mumble” lab room 1350
  - 40 workstations
  - Redhat Enterprise 6
  - mumble-01.cs.wisc.edu – mumble-40.cs.wisc.edu

- Remote access via SSH
- Remote desktop via Department VPN and VNC
Instructional Labs: Windows

- Windows 7
- “cyclops” lab room 1358
  - 8 workstations: dual 24” monitors
  - 4 workstations: single 24” monitor
- “poseidon” lab room 1366
  - 20 workstations: dual 24” monitors
- “odysseus” lab room 1368
  - 15 workstations: single 24” monitor
Instructional Labs: Windows

- Remote access to rd.cs.wisc.edu via Department VPN and Windows Remote Desktop client
Instructional Labs: Apple

- Room 1370
- 19 mac minis
  - Dual monitor
- 11 27” imacs
Printing and Printers

- **1st floor:**
  - Black & White laser printers

- **3-7th floors:**
  - Color laser printer/copiers
  - PLEASE print to B&W print queue unless you NEED color printing

- **Unlimited print quota**
  - Please don't abuse it
Office Workstations

- Teaching Assistants & Fellowship students
  - PC & monitor provided by CS Department
  - Redhat Enterprise 6 Linux
  - Managed by CSL
  - Fixed configuration, can't add users or change hardware
Office Workstations

• Research Assistants
  • PC & monitor provided by your advisor
  • Linux
    – Redhat Enterprise 6 for all new computers
    – Redhat Enterprise 5 for some computers (on isolated network)
  • Windows
    – Windows 7
• Managed by CSL
Office Workstation Access

- Offices assigned by Perry K
  - You MUST be on the office list in order to get access
- TA desks/workstations
  - Desks/Workstations typically not assigned: work it out with your office mates
  - Email lab@cs.wisc.edu when you claim a workstation
    - Office number, workstation name
Office Workstation Access

- RA workstations provided/assigned by advisor
  - You MUST be on the office list
  - Need Instructions from advisor for any computer moves/changes
- Cascade effect of office moves
Workstation Care

- Please don't turn off or reboot CSL workstations
- Please don't move the workstation
  - Send email to lab@cs.wisc.edu to request workstation move
- Clean LCD monitors with screen cleaner
  - Do NOT use window cleaner
Workstation Care

- Wipe the keyboard with a damp cloth
- Ask for replacement keyboards/mice if needed
- Report problems to lab@cs.wisc.edu
Software

• **Linux:**
  • Multiple versions of software packages often available in /s/package-version/bin

• **Windows software:**
  • Multiple versions may be available via configuration server
Software

- Security patches applied as soon as practical
- Package updates and upgrades applied when reasonable
- Need something? ask, we'll try
- Suggestions welcome
CS Web Servers

- www.cs.wisc.edu
  - CS Department home page
  - Project web sites

- pages.cs.wisc.edu
  - Personal web pages
  - Files in ~/public/html
CS Web Servers

- www-auth.cs.wisc.edu
  - SSL only
  - Authenticate with your CS username and password
  - Authenticated services
    - Web forms for routine requests
    - Room reservations
    - Mailing list archives
- csl.cs.wisc.edu
  - CSL news, status and documentation
  - Some CSL forms (to replace www-auth.cs.wisc.edu)
CS Web Servers

• Project web/application servers as needed
• Per-user application servers if needed
Contacting the Systems Lab

- Use email if possible
  - lab@cs.wisc.edu
  - Automatically entered in request tracking system
  - Provide as much information as possible
  - Don't assume we know the context

- Please don't contact individual staff directly
  - Ticket assigned to the appropriate staff
Contacting the Systems Lab: Request Tickets

• Include lab@cs.wisc.edu in any follow-up mail
• Include [CSL #NNNNNN] in Subject: line
• Appropriate follow-ups to the same CSL #
• New topics: new mail to lab@cs.wisc.edu
  • New request assigned to the appropriate staff
Contacting the Systems Lab

• Use a web form if there is one
  • https://www-auth.cs.wisc.edu
  • Best way to assure fast, correct and consistent service

• Walk-in service desk, room 2350
  • 8-12, 1-5 M-F (typically)
Contacting the Systems Lab

- Plan ahead
- Read the polices and web pages
- Open to suggestions
  - lab@cs.wisc.edu
- Please understand, special cases are hard
- Busy times: start and end of each semester
Welcome, and Good Luck!