CSCF Services

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Slides available on:

https://cs.uwaterloo.ca/cscf/information-graduate-students

CSCF Structure

- 3 groups
  - Infrastructure – provides servers, network infrastructure, Active Directory, purchases all computing equipment for the School
    - Manager: Dave Gawley, plus 4 staff
  - Teaching and Administration: supports all undergraduate teaching labs, plus administrative staff, the Instructional Support Group and School meeting rooms and audiovisual services
    - Manager: Omar Nafees, plus 6 staff
  - Research Support: provides computing support for Faculty, Grads, PostDocs and Research Visitors
    - Manager: Lawrence Folland (me), Mike Gore, Gordon Boerke, Lori Paniak, Nathan Fish, Harsh Roghelia

Workstations when you arrive

- Research grads
  - Supervisor has choice of:
    - Lenovo Laptop – Windows or Ubuntu
      - Includes a built-in GPU
    - MacBook (limited quantities)
      - No GPU
    - Provide equipment themselves
- Course Masters
  - Shared rooms (DC 3335 and DC 2583A) – iMacs / PCs

- https://cs.uwaterloo.ca/cscf/about/policies/graduate-student-workstation-options

Research Support: IT Concierge

- Supervisors “subscribe” to support
- Pay a fixed fee per term based on desired quantity of support
- Provides for a predictable fee and level of support
- Each group/faculty assigned a “**Point of Contact**” within the Research Support Group – that’s your “go to” person
- Other RSG staff will also help as needed
- Staff are familiar with Windows, Linux and Mac to varying degrees plus most system administration tasks, cluster management and software installation
- Speak to your PoC about software installations, OS upgrades, borrowing hardware, eg: PCs for experiments, extra screens, etc.

CSCF Help Desk

- We have a Help Desk who can handle certain tasks
  - Setting passwords
  - Loan of equipment – cables, display adapters, external drive bays, keyboards, mice
  - Assist with wireless issues
  - Take a problem report and get it assigned to appropriate staff
  - x31100, DC 2608 or cscfhelp@uwaterloo.ca

  - https://cs.uwaterloo.ca/cscf/getting-help/help-desk

Compute Resources

- School Linux servers
  - linux.cs.uwaterloo.ca (Ubuntu 18.04)
  - linux.student.cs.uwaterloo.ca (for course work, Ubuntu 18.04)
- School Windows servers
  - windows.cs.uwaterloo.ca (available via RDP)
  - windows.student.cs.uwaterloo.ca

File Storage

- Ceph distributed cluster – 500TB total/500GB per student (more if you ask)
  - Home directory under linux.cs
  - P: drive under Windows.cs and Windows workstations
  - SMB(Windows network filesystem): //smb-files.cs.uwaterloo.ca
  - Amazon S3 buckets on request for object store
- Backup
  - files are backed up daily
  - Snapshots: cd .snapshot in any directory, files stored by hour, day, week

NextCloud (DropBox-like service)

- Locally stored
- Up to 500GB per grad student
- Access at vault.cs.uwaterloo.ca
- Download NextCloud clients
- Documentation: https://cs.uwaterloo.ca/twiki/view/CF/Vault

Web pages

- www.cs.uwaterloo.ca/~youruserid

- Files in NetApp folder under “~/public_html”
- Create / update index.html
- Make sure to assign “world read” to your web files
  - %chmod o+r index.html

Email

- youruserid@uwaterloo.ca
  - Grad students automaticially given an Office 365 account (Microsoft Exchange – Campus Email/Calendar tool)
  - -> can redirect wherever you prefer
  - Your own account (Gmail, Hotmail, etc)
  - You can also configure a “friendly” email address, eg:
    - Lawrence.Folland@uwaterloo.ca
    - Do that in http://watiam.uwaterloo.ca
      - Manage Email Settings

Printing

- Can print to any of our printers listed on our CUPS server:
  - http://print.cs.uwaterloo.ca:631/printers/
  - Or \\printers.cs.uwaterloo.ca (in Windows)
    - (login with your CS-GENERAL\userid credentials)

- Setup notes:
  - https://cs.uwaterloo.ca/twiki/view/CF/WindowsPrinting
  - https://cs.uwaterloo.ca/twiki/view/CF/LinuxPrinting
  - https://cs.uwaterloo.ca/twiki/view/CF/MacPrinting
- Note: printing is tracked but no longer quota limited

- https://cs.uwaterloo.ca/cscf/services/printing

High Performance Computing (SCS)

- Faculty-provided servers/clusters
  - Syn cluster – Salem/Wong/Brecht (Data Systems Group)
  - Ripple – Ian Goldberg (CrySP)
  - Tembo – Daudjee/Ozsu
  - CloudNetwork – Raouf Boutaba
  - Cabernet – Justin Wan (SciCom)
  - Chardonnay – Justin Wan (SciCom)
  - M160 – Ming Li (Bioinformatics)
  - Daytona – Poupart/Hoey/Lizotte (Health Informatics)
  - Husky - Ihab Ilyas (DB)
  - Novo – Bin Ma (Bioinformatics)
  - GPU systems abound …
  - Various other servers

- https://cs.uwaterloo.ca/twiki/view/CF/HighPerformanceComputingResources

HPC - SHARCnet

- Compute Canada provides batch computing for large numbers of cores / memory
- 1 TB storage
- Requires a SHARCnet account based on faculty sponsorship (your supervisor needs to have an account to sponsor yours)
- There is no cost to use these resources
- Systems: https://www.sharcnet.ca/my/systems/index

- https://cs.uwaterloo.ca/twiki/view/CF/HPC#SHARCnet

Software

- Windows – can be put on any Research / Teaching machine
- MS Office – campus license
- Visual Studio – free Academic license
- VMWare – Math license – covers vSphere Enterprise Plus, vCenter, vCloud Director, vCloud Suite, Workstation, Fusion, etc. – for research / teaching machines
- Maple – free for UW users
- MatLab – now covered by a campus-wide license
- Others – talk to your Point of Contact

Questions? Feedback?

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