# Network Monitoring & Management

# A few Linux basics

# Our chosen platform

**Ubuntu Linux 10.04 LTS 32-bit**

- – LTS = Long Term Support
- – no GUI, we administer using ssh
- – Ubuntu is Debian underneath

- In the real world choose 64-bit edition

- There are other platforms you could use:
  - – CentOS / RedHat, FreeBSD, …

- This isn't a UNIX admin course
  - – Worksheets are mostly step-by-step
  - – Please help each other or ask us for help

# You need to be able to….

Login to your virtual machine using ssh

- On Windows use putty.exe

- Connect to pcX as user *sysadm*

- Be *root* when necessary: `sudo <cmd>`

- Install packages

  - `sudo apt-get install <pkg>`

- Edit files

  - `sudo joe /etc/mailname`

  - `sudo vi /etc/mailname`

# joe editor

- Ctrl-C quit without saving
- Ctrl-K X to quit and save
- Cursors work as you expect
- We provide a PDF reference in the materials

# vi editor

- The default editor for all UNIX and Linux distributions
- Can be difficult to use
- If you know it and prefer to use vi please do
- We provide a PDF reference in the materials

# Other tools

- Terminate foreground program:
  - `ctrl-c`
- Browse the filesystem:
  - `cd /etc`
  - `ls`
  - `ls -l`
- Rename and delete files
  - `mv file file.bak`
  - `rm file.bak`

# Starting and stopping services

Standard method

- `/etc/init.d/apache2 restart`

New method

- `service apache2 restart`

Check for the process

- `ps auxwww | grep apache`

# Viewing files

Sometimes files are viewed through a pager program ("more", "less", "cat"). Example:

- `man sudo`
- Space bar for next page
- "b" to go backwards
- "q" to quit
- "/" and a pattern (/text) to search

# To get started

1. Login to your virtual server using ssh
2. Install the "joe" editor package
   - `sudo apt-get update`
   - `sudo apt-get install joe`
3. Edit the "`mailname`" file and update the entry to match your virtual machine's name:
   - `sudo joe /etc/mailname`
     (Or use your favorite editor (vi, pico, etc.). Change "gold.ws.nsrc.org" to "pcX.ws.nsrc.org")
4. Save and quit from the file. (*ctrl-K-H* for Help)
5. Restart the mailserver:
   - `sudo service postfix restart`

# Troubleshooting: Your logs

- Log files are critical to solve problems. They reside (largely) in /var/log/
- Some popular log files include:
  - /var/log/messages
  - /var/log/apache2/error.log
  - /var/log/mail.log
  - And, many, many more
- To view the last entry in a log file:
  - `tail /var/log/messages`
- To view new entries as they happen:
  - `tail -f /var/log/messages`