CSC 467/567: Switching, Network Traffic and Quality of Service

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Topics to be Covered

- Review of Networking (parts can be new)
  - Internet as an example
  - Connection based and Connectionless
- Switch / Router Architectures (Data path focus)
- Traffic Management and Traffic Engineering
  - Quality and Class-of-Service
  - Traffic policing and scheduling
- Data and Control Plane
  - Recent advances (e.g., Network Processors, VPNs, VPLS)
  - MPLS, QoS routing aspects and Protocols (OSPF-TE, BGP-TE)
- Media Services (time permitting)
- Optical Networks (time permitting)
  - Wavelength Division Multiplexing (WDM)
  - GigE as transport

Emphasis on aspects of Practical Networking, Equipment Design andTraffic Issues

Course Website

- On conneX
  - Problems? Let me know
- If you are new to conneX system and if you are a registered student, an account is automatically setup for you. You still need to activate your account at:

  https://www.csc.uvic.ca/OASYSActivate/

Background

- Mine
- Yours
  - Assume that a basic networking course is completed
  - Anyone has knowledge of Probability, Queuing or Simulations?
  - Why are you taking this course?
    - What are you expecting from this course?
    - What other items you would like to see in the course?

Material

- No prescribed text book
- Material is mostly from various resources
  - Lots of good material is already available
  - Lets spend time on the content
  - Will give you a link or post them on connex

- Course will cover lots of technical material

Grading

- Four Assignments (8% each = 32%)
  - Design and analysis Problems
- Project (30%) (Grad students presentations)
- Two tests (Midterm on Feb 10 for 13%, Final 25%)
- Project Topics
  - Individual Topics
  - Assigned or Chosen with approval
  - Expected to research on a given topic
  - Write a concise report of 15 to 20 pages (*in your own words*)/demo/present

Questions

- Any
  - Questions, Comments, Problems?
- conneX Problems
  - Let me know first