

WAN

Essentials: GRE as a multi-purpose tunneling tool

Agenda

- Pop quiz on NAT
- Final theory exam: **Tue Dec 13 @ 2pm** room **AT302** (Azrieli bldg, Carleton)
(Please double-check to make sure I haven't made any typos!)
- Live Demo of NAT DMZ: scheduled for Monday lecture
- Review NAT: Static, Dynamic, PAT
- Complete: last few slides on NAT
- Start: GRE - Generic Routing Encapsulation

Assignments and Lab work

- **NetAcad module test:** Modules 3-5 **before** Mon Nov 28 @ 1pm
 - We've covered 2 of 3 modules, so marks will be scaled out of 66%
 - You're welcome to do self-study of Module 3 and achieve extra/bonus marks
- **NetAcad module test:** Modules 9-12 **before** Fri Dec 2 @ 11:59pm
 - We've covered 2 of 4 modules, so marks will be scaled out of 50%
 - You're welcome to self-study Modules 9-10 to achieve extra/bonus marks
- Lab 10 post-lab: due **before** Thu Nov 24 @ 11:59pm
- Lab 11: NAT for IPv4
- Looking ahead:
 - Lab 12 = GRE (likely IPv6-over-IPv4-GRE)
 - Lab 13 = SBA practice (aiming for exact same topology as SBA)
- Readings from ENSA textbook or online at NetAcad:
Module 8: VPNs by Mon Nov 28, especially section 8.2.4 on GRE

Key Aspects of GRE

- A simple tunneling tool that can carry anything that ethernet can carry!
- Widely available and relatively easy to configure.
- Typically adds 24-28 bytes of overhead, which is a "medium" penalty (not the smallest amount of overhead, nor the largest).
- Works over the stock IPv4 global internet!
- A nice option to carry {whatever you want} over NAT'd networks or across networks that you don't control in any way.

... All the above combine to make it a very versatile tool.