News filtered through Compsci 82

- BPG Security Hole at DefCon

- **What is BGP?**
  - Border Gateway Protocol

- **Should we care?**
  - About what?

- **Malicious or Accident?**
  - Pakistan and Youtube

News Sources

- http://slashdot.org/

- http://www.nytimes.com

- http://allthingsd.com/

- http://www.theregister.co.uk/

Internet Addresses and Routing

Thinkgeek.com

Internet Protocol RFC 791, 1981

http://www.ietf.org/rfc/rfc791.txt

The internet protocol is specifically limited in scope to provide the functions necessary to deliver a package of bits (an internet datagram) from a source to a destination over an interconnected system of networks. There are no mechanisms to augment end-to-end data reliability, flow control, sequencing, or other services commonly found in host-to-host protocols. The internet protocol can capitalize on the services of its supporting networks to provide various types and qualities of service.

Internet Protocol RFC 791, 1981

http://www.ietf.org/rfc/rfc791.txt

A distinction is made between names, addresses, and routes [4].   A name indicates what we seek. An address indicates where it is. A route indicates how to get there. The internet protocol deals primarily with addresses.

Names, numbers, routes

- www.nus.edu.sg
- www.duke.edu
- www.stanford.edu
- www.google.cn
- www.tsinghu.edu.cn

- www.traceroute.org
- visualroute.visualware.com
- How does a packet know where to go?

- How do we find IP for each name?
- How does Internet?

DNS Flaw, July 2008

- Kaminsky finds DNS flaw
- Announces in July
- Meeting in Redmond
- Flaws in BIND
  - Open Source
  - Common DNS
- OpenDNS
- Announce, no details
  - Fix yes!   Kaminsky Explains the Issues (wired)

Pakistan shuts down Youtube

- www.renesys.com
- What is BGP, What is an Autonomous System?
  - AS
  - Border Gateway Protocol

- Transitive Trust Model of Internet Routing
  - What is trust? What is Routing?
  - Who created BGP?

- How long for the world/Youtube to notice?
  - How long to fix, how?