



Computer Networks

Acknowledgements

- ◆ Slides contain material adapted from lecture notes developed by
 - ◆ Authors of “Computer Networks” book by Andrew Tanenbaum & David Wetherall
- ◆ Slides contain images from other online resources

What is a network?

“A group or system of *interconnected* people or things”

Example networks

- ◆ *Postal* network
 - ◆ Delivers letters/packages between sender & receiver
 - ◆ Sender & receiver identified by *postal address*



Example networks

- ◆ Plain old *telephone* network
 - ◆ Provides voice communication between users
 - ◆ User identified by *telephone number*



Computer Network

- ◆ Provides communication between *computers*
 - ◆ I.e., computers can *exchange* data



What can computer networking give us?

- ◆ *Communication* or information sharing
 - ◆ E.g., electronic mail, message broadcast, etc.
- ◆ *Resource sharing* (both hardware & software)
 - ◆ E.g., printers, disks, application software
- ◆ *Remote* computing (location *independence*)
 - ◆ Geography need not be a restriction!
- ◆ ...



Computer Network

- ◆ Provides communication between *computers*
 - ◆ I.e., computers can *exchange* data
- ◆ Need a way to *identify* computers
 - ◆ In the Internet, this is done via *IP addresses*

