

# CS5222 Computer Networks and Internets

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Slides based on book *Computer Networking: A Top-Down Approach*.



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## Today's Lecture

### Goal:

- Overview of "big picture," introduction to terminology
  - more depth & details later
- Approach:
  - use Internet as example



### Roadmap:

- What is the Internet?
- What is a protocol?
- Network edge:** host, access network, physical media
- Network core:** packet/circuit switching, internet structure
- Performance:** loss, delay, throughput
- Protocol layers, service models

## The Internet: a "nuts and bolts" view



Billions of connected computing **devices**:

- hosts = end systems**
- running network **apps** at Internet's "edge"



**Pocket switches:** forward packets (chunks of data)

- routers, switches



### Communication links

- fiber, copper, radio, satellite
- transmission rate: bandwidth

### Networks

- collection of devices, routers, links: managed by an organization

