

Introduction to Computer Networks

COSC 4377

Lecture 12

Spring 2012

February 29, 2012

Announcements

- HW6
- Exam1
 - Solutions
 - Will be returned at the end of the class

HW6: Rate Limits

- Client and Server negotiation rate
- Server does fair bandwidth allocation among clients, dynamic adjustments
- Rate throttle large downloads

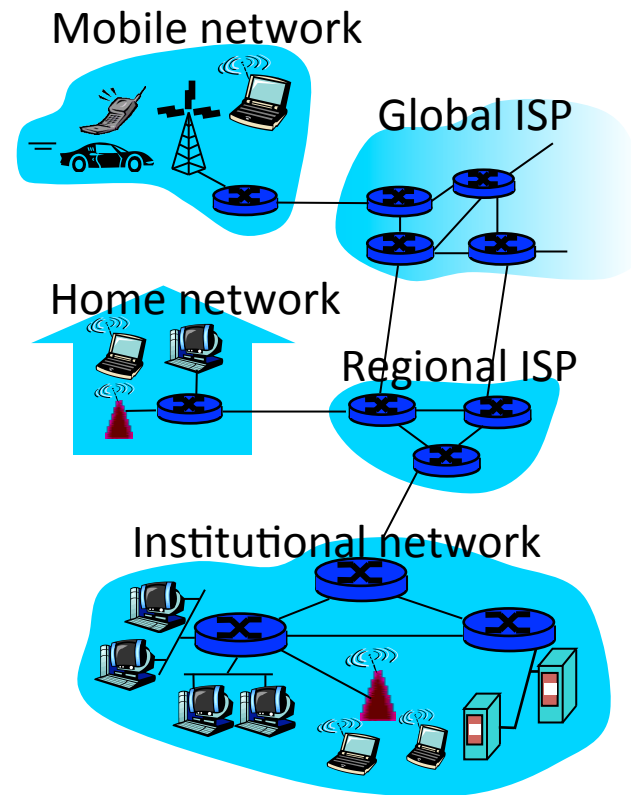
Today's Topics

- Exam1 solution
- Overview of Routing

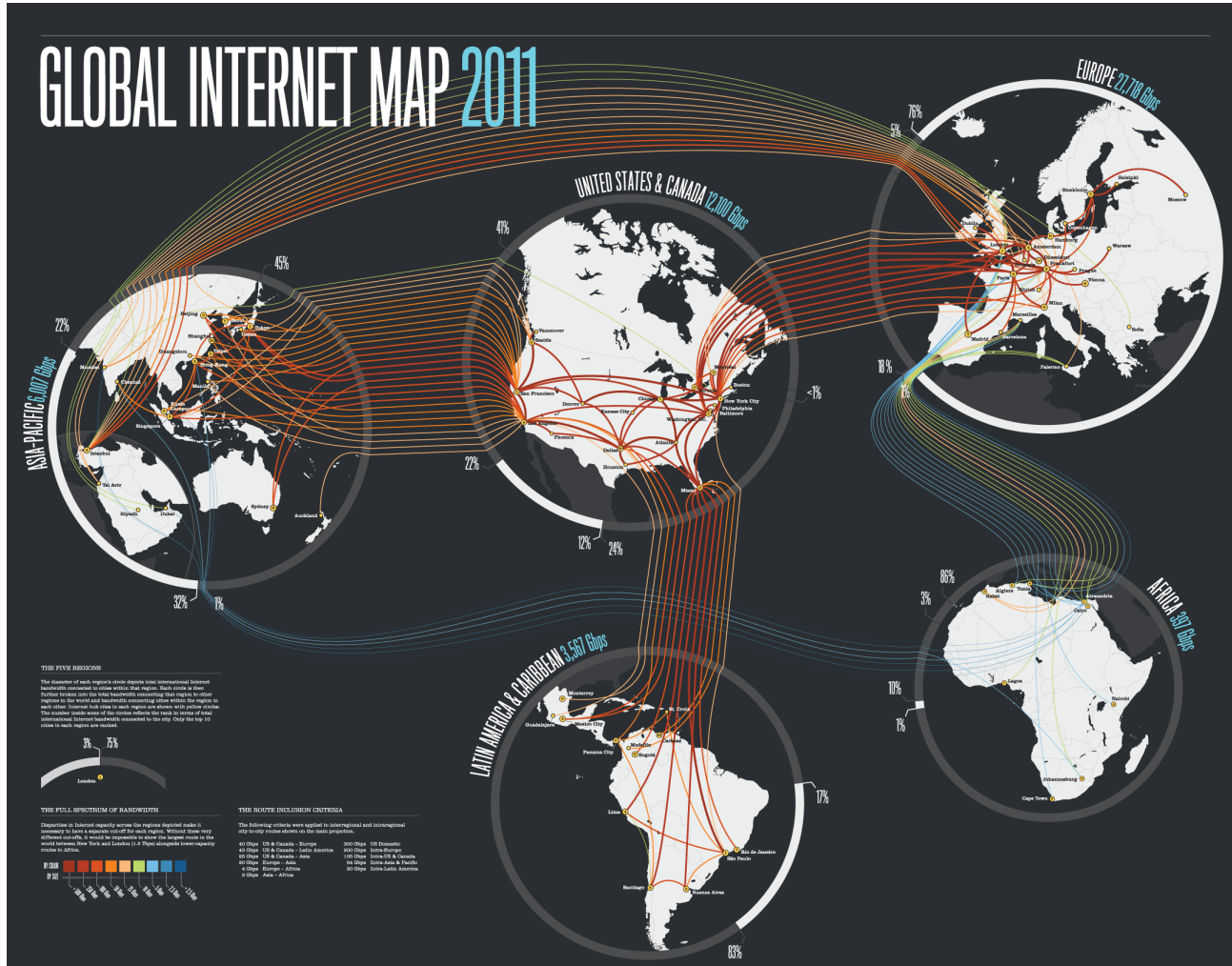
The Internet

- Collection of nodes, wire and wireless technology connecting those nodes, applications and services

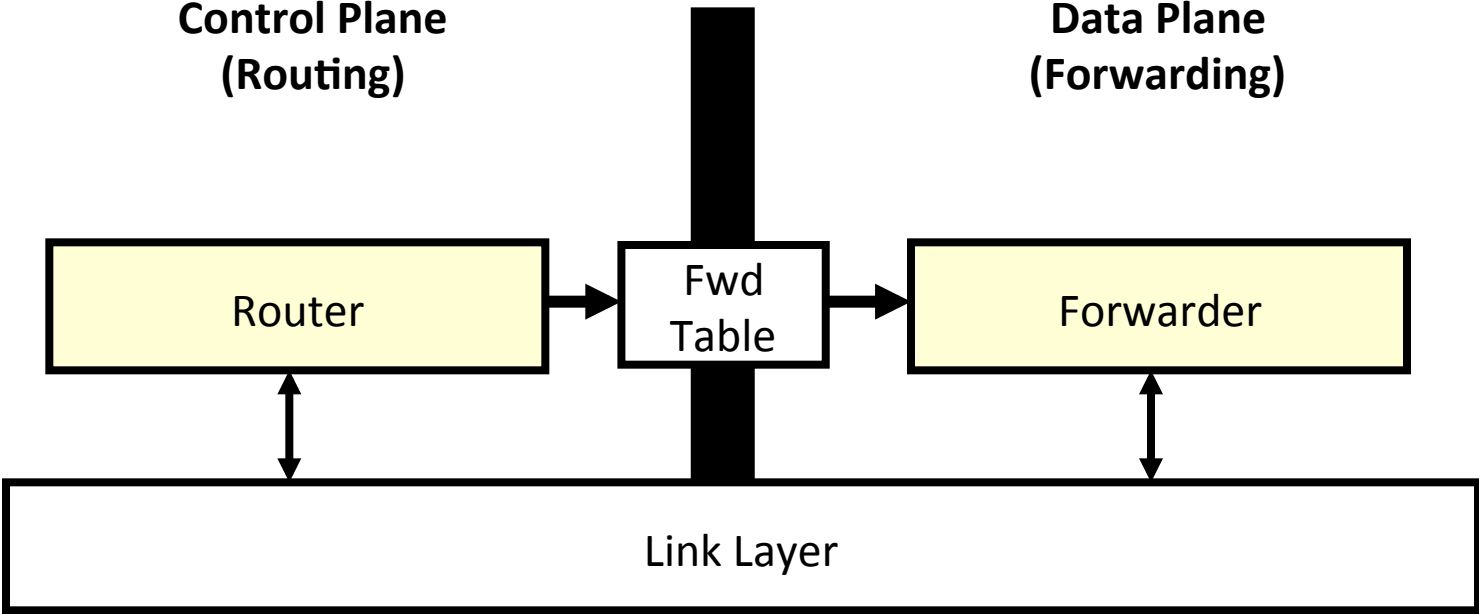
- Types of nodes
 - Desktops and Laptops
 - Servers
 - TV / Refrigerator
 - Cellphones



GLOBAL INTERNET MAP 2011



Router Architecture



Routing

- Routing is the process of updating forwarding tables
 - Routers exchange messages about routers or networks they can reach
 - Goal: find optimal route for every destination
 - ... or maybe a good route, or *any* route (depending on scale)
- Challenges
 - Dynamic topology
 - Decentralized
 - Scale