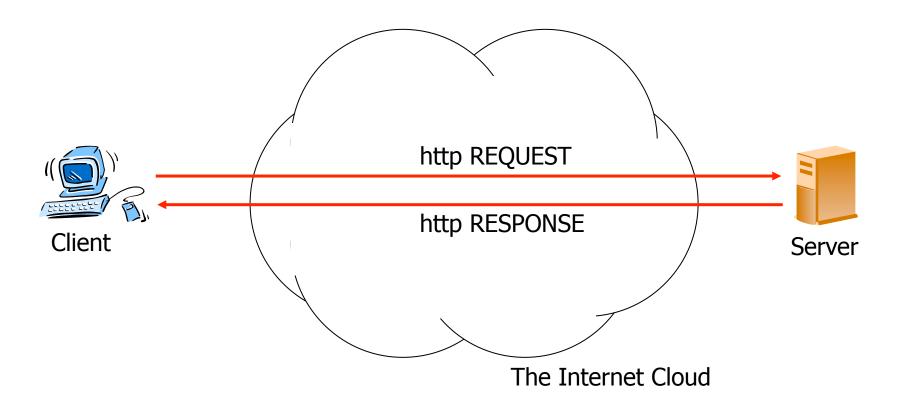
# An Introduction to Internet Economics

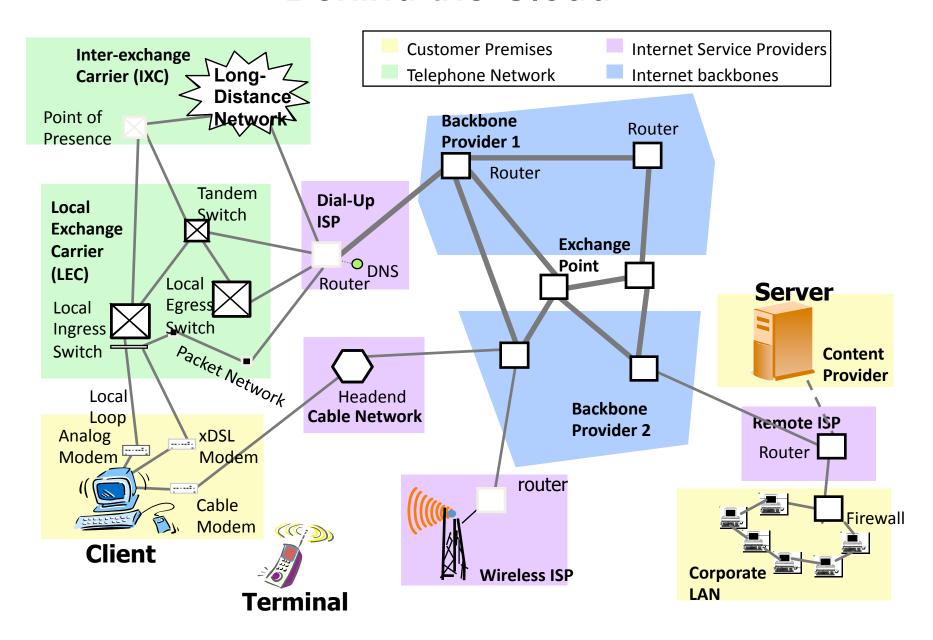
INFO153 Summer 2011

John Chuang

## Foundation of the Web



#### Behind the Cloud

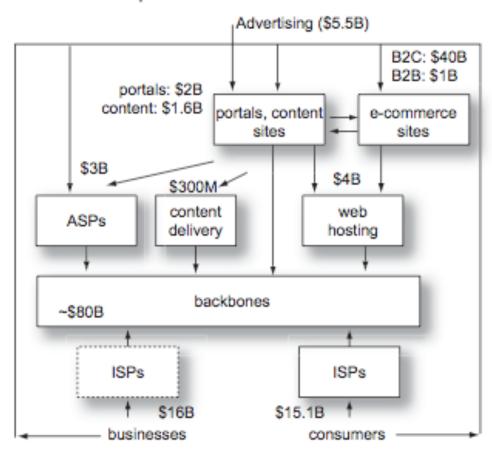


# **Industry Structure**

- The Internet comprises of a large number of federated components, each owned and operated by autonomous entities
- How is the Internet industry structure organized?
- How does the money flow?
- "We know how to route packets, what we don't know how to do is route dollars."
  - -- David C. Clark

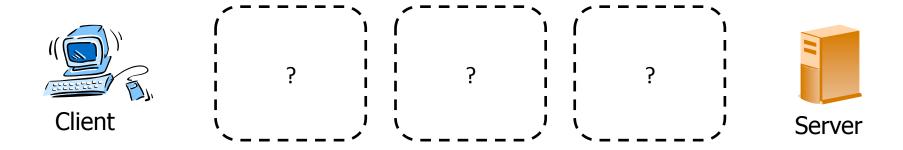
### Routing Dollars on the Internet

#### A map of dollar flows on the Internet



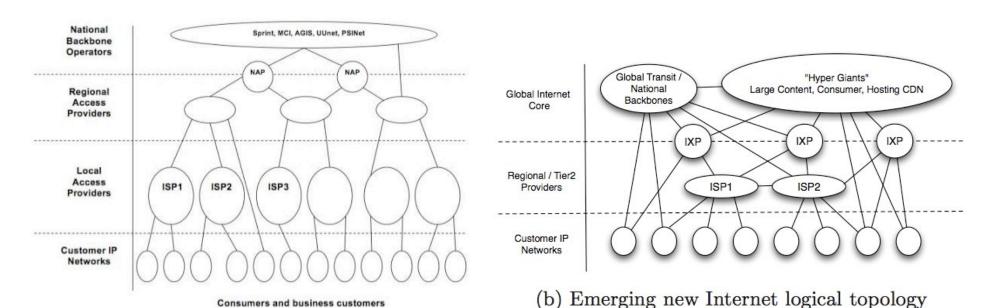
 O' Donnell, An Economic Map of the Internet, Telecommunications Policy Research Conference, 2002.

# The "Internet Supply Chain"



- 1. What are the upstream/downstream stages in this chain? What are examples of firms in each stage?
- 2. Who pays whom in this chain?
- 3. Do any firms operate in multiple stages?
- 4. Which firms or stages are dominant, and why? What policy implications?

# Changing Internet Landscape



(a) Traditional Internet logical topology

Source: Labovitz et al., "Internet Inter-Domain Traffic", Proceedings of ACM SIGCOMM 2010.