

# Network Fundamentals

Week Five  
Dannelly's Sections

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## Basic Network Types

- ▶ **LAN** – Local Area Network
  - small area (e.g. a building)
  - small number of machines
- ▶ **WAN** – Wide Area Network
  - large area
  - usually a collection of LANS
- ▶ Textbook also includes
  - PAN – personal area network
  - MAN – metropolitan area network

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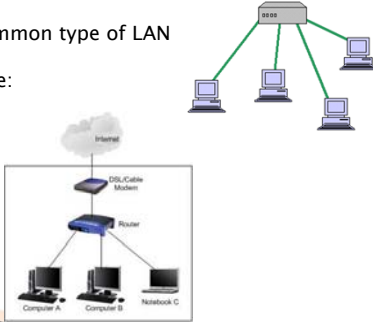
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## Common Networking Devices

- ▶ **Ethernet**
  - the most common type of LAN
  - Advantage:
  - Disadvantage:
- ▶ **Switch**
- ▶ **Router**



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## Transmission Media

- ▶ **Twisted-Pair**
  - used in your house for the phone
  - used by a DSL Modem
- ▶ **Coaxial Cable**
  - used in your house for cable TV
  - used by a Cable Modem
- ▶ **Radio / WiFi**
- ▶ **Fiber Optic**

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## Networking your Home or Office

- ▶ **Home**
  - your phone or cable company probably supplies the modem (DSL or Cable modem, respectively)
  - you may have to buy a router
  - you configure the security settings on the router
- ▶ **Office**
  - for your LAN, you'll probably use Ethernet
  - if you need a WAN, it may be best to set up a "Virtual Private Network"

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