# Best Current Practice

- Assignments based on requirements
- Classless assignments
- RFC1918, NAT
- HTTP 1.1
- Dynamic Dial-up
- IP unnumbered

# Private Address Space

- **RFC1918**
  - 10/8 — 10.0.0.0 - 10.255.255.255
  - 172.16/12 — 172.16.0.0 - 172.31.255.255
  - 192.168/16 — 192.168.0.0 - 192.168.255.255
- **Motivation**
  - saves public address space
  - allows for more flexibility
- **Suitable when**
  - hosts do not require access to other networks
  - hosts need limited access to outside services
    - can use application layer G / W (fire walls, NAT)

# Web Hosting

- **Name based hosting**
  - single IP address assigned to physical server that hosts several virtual hosts
- **IP based hosting**
  - single unique IP address assigned to each virtual host

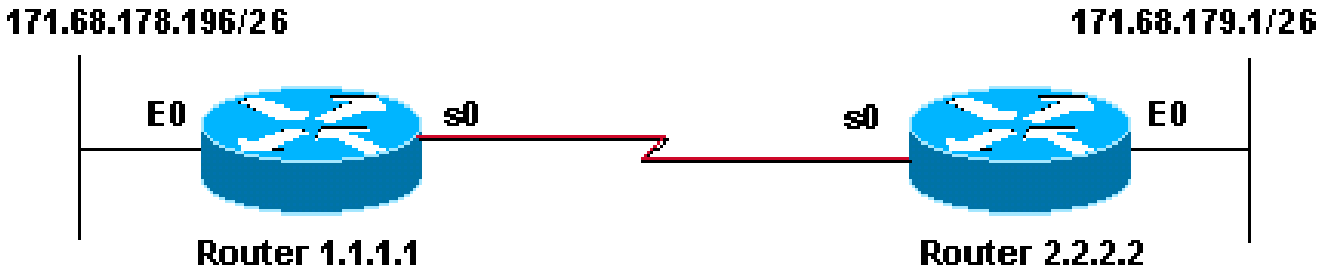
# Name Based Hosting

- **Conserves Address Space**
- **Requires**
  - support of “Host:” header in HTTP requests
  - HTTP1.1 compliant browsers
- **Technical Exceptions**
  - SSL certificates
    - work ongoing at IETF to support name based hosting
  - Virtual ftp domains with anonymous login

# Dial up

- **Static dial-up strongly discouraged**
  - Wastes address space
- **Dynamic dial-up recommended**
  - assigning addresses to a pool
  - serves more users

# IP Unnumbered




- **R1 and R2 form a "virtual router"**
- **The serial link has no ip address**
  - All packets arriving at S0 of either router immediately go to its E0
  - All packets generated at E0 go onto serial link
- **Conserves addresses but makes management harder**

# Questions