Assignment for Next Class

• Read and prepare the cases 1, 2, and 3. (pp. 311-316)

Packet-based Transmission

The whole message is split into multiple packets

FROM: 123
TO: 129

The Internet

Chapter 7

Routing

FROM: FT. MYERS
TO: N.Y.C.

TO = Atlanta? No!
TO = N.Y.C.? Yes -> deliver!

TO = Tampa? No!
TO = Orlando? No!

Post Office, Ft. Myers

Internet: The Basic Idea

PC1
PC2
PC5
PC3
PC4
PC6
Routing Messages Over the Internet

IP Address
- Unique, numerical address for a computer (a connection) in a network.
- Example:
  - 170.124.233.14
- IP represents position in the network
  - changes, when a service moves or the structure of the grid is being modified.

Domain
- Name for a host or service
  - e.g. www.fgcu.edu
- Is being translated by a Domain Name Server into an IP address
  - www.fgcu.edu -> 207.203.214.28

Domain Names
- www.fgcu.edu
  - Top Level Domain
    - com, gov, mil, de, it, ca etc.
  - Subdomains
    - Name of the organization (e.g. "fgcu")
    - Host name
    - others

U.S. Top Level Domain Affiliations

Protocols
- Defines the type and content of the transmission
  - HTTP: Hypertext Transfer Protocol
  - FTP: File Transfer Protocol
  - SMTP: Send Mail
  - POP3: Retrieve Mail
  - TELNET: Terminal protocol
The World Wide Web

- "Document"-based (resources)
- Hyperlinks between resources
- Support of multiple content types:
  - Text, pictures, sound,…

Hypertext Markup Language

```
<html>
  <head>
    <title>Page Title</title>
  </head>
  <body>
    This is my FIRST HTML page...
  </body>
</html>
```

A Simple HTML Document

```
<html>
  <head>
    <title>Page Title</title>
  </head>
  <body>
    This is my FIRST HTML page...
  </body>
</html>
```

Browser View

```
Page Title - Microsoft Internet Explorer

This is my FIRST HTML page...
```

Important HTML Tags

```html
<h1>Headline 1</h1>
<h2>Headline 2</h2>
<h3>Headline 3</h3>
<h4>Headline 4</h4>
<h5>Headline 5</h5>
<h6>Headline 6</h6>
```
Browser View

Search Engines / Spiders

Java Virtual Machine

Cryptography
Thank you!

The slides will be available on the internet at
http://ruby.fgcu.edu/courses/mhepp/
(-> CRN80097)