Protocol Research Project

July 15, 2013

1 Introduction

There are many more internet protocols than we can cover in this class. In this project, you will research and present on one of the ones that we will not cover in depth.

2 Requirements

Your project will consist of

1. The answers to the questions in the "Questions" section in written format. Each question needs at least a sentence answer, and depending on your topic, some will require as much as a paragraph. It is up to you to determine how much text you need to answer each question completely.
2. A presentation to the class including the answers to the same questions.
3. A demonstration of the protocol in some form.

3 Questions

Your report and presentation should include the following information:

1. In human terms, what this protocal does.
2. What layer of the ip suite it belongs to.
3. Specification the protocol (for complex protocols, you can give a summary).
4. Where is (or was) this protocol used?
5. What alternatives, if any, exist or have existed?
6. What are its advantages and disadvantages?

4 Due dates

- Email me by the beginning of class this Tuesday (**July 16th**) to claim a topic.
- On Thursday (**July 18th**), I will check in with each of you. At that time you should have a draft of the written part and know how you are going to do your demonstration.
- Presentations will be made next Tuesday (**July 23rd**).

5 Advice

- Your presentation should include either slides or diagrams drawn on the white board. You shouldn't just stand at the front of the class talking.
- Dry-run your presentation, timing yourself at least once. Make sure your dry-run includes your demonstration.

6 Possible Topics

- Time Division Multiplexing (Media access control)
- Token ring (Media access control)
- ALOHA (Media access control)
- IEEE 802.11 (local wireless network link layer protocol)
- IP Multicasting
- IPv6
- UDP (User Datagram Protocol)
- ICMP (Internet Control Message Protocol)
- telnet
- SMTP (Simple Mail Transfer Protocol, aka email)
- SSH (Secure Shell)
- LPD (Line Printer Daemon)
- DNS (Domain Name Service)
- IRC (Internet Relay Chat)
- NTP (Network Time Protocol)