Internet and Its Protocols

2552 (2009)

Assignment 1

The assignment is to determine why the number 1280 was chosen as the minimum MTU (maximum transmission unit, or required packet size) that is permitted on any link that handles IPv6 traffic.

That is, on any links with a restriction that packets cannot be at last 1280 bytes (excluding link layer overhead) IPv6 requires the link layer to provide some kind of link layer packet fragmentation and reassembly system to that it appears to the network layer a if 1280 byte (or anything smaller) packets can be successfully carried, without requiring network layer fragmentation.

The assignment is to discover where the number **1280** came from? What other numbers were considered? Why were others rejected?

Note: this assignment is **not** for you to give your understanding of whether or not 1280 is a good value, nor what other number you might have chosen (though none of that would hurt your answer if you choose to include it), it is to discover what values the IPng working group of the IETF actally considered, what arguments were made for various choices, and why 1280 was actually selected from among the choices they considered.

You will need to consider the archives of the IPng working group (a now extinct working group, look for it in the old groups list, in the Internet area, at www.ietf.org) and minutes of meetings to discover how this number was chosen.

You may assist each other with the research, that is, in finding the source materials to read, but you should interpret the material you find and write your own discussion of the issues discussed and reasons given for the various possible required MTU choices.

There is no minimum length for the answer, nor any maximum length, but anything much longer than a couple of pages is likely to be including too much irrelevant information...

Please e-mail a PDF format file (or a simple text file, without any formatting other than line endings) with your answer before 17:00 on Sept 30, 2009.