CPSC 527, Fall 2015, Final exam

This is a take-home final exam. You must work alone. For each question below I provide instructions on (1) the expected format of the answer, and (2) the resources you may or may not consult for your answer. You must follow these instructions and your answer must be your own. Answers that are particularly creative, elegant, and to the point are encouraged. All questions regarding the exam must be sent directly to the instructor by email who will respond in a best-effort manner. Exam answers must be emailed to instructor in pdf format as a single attachment by 5PM on Friday, December 11.

Question 1 of 1:

Respond to the following design prompt with an essay that is max 2000 words in length¹. You may use any resources you can find (open book). However, you must cite all resources that you use for your answer.

First, select one of the following three topics: (a) end-host mobility, (b) network addressing, (c) internet censorship. Then, select a paper from our schedule this term that (1) describes and evaluates a networked system, and (2) does not relate directly to the topic from the first step. For example, it is not okay to select the "An End-to-End Approach to Host Mobility" paper if you selected end-host mobility as your topic. But, it is okay to select a middlebox paper for this topic.

[Q1.A: 50/100 points] Identify and describe one non-trivial technical issue that relates to the topic and the paper you selected that has not been discussed in much detail (or at all) in the paper. This description must be complete (i.e., it should be clear why it is an outstanding issue, why it is non-trivial, and why a technical solution will resolve this issue).

[Q1.B: 50/100 points] Sketch out a solution that leads to a resolution of the issue that you identified, without compromising the contribution/argument made by the original paper. A good sketch would include high-level design criteria, such as requirements and assumptions, and must cogently argue why it leads to a solution of the issue.

 $^{^1\}mathrm{as}$ reported by wc $-\mathrm{w}$