

Assg #1: Measuring RTT

- Write program to measure round-trip time between two end host on the Internet;
 - Refer to ping: write a simple wrapper program..
- Propose a model for RTT prediction, i.e., give a sequence of RTT measures, estimate the next RTT value.
 - Measure several values of RTT. What can you say about the samples? If they are variable, what can you do to reduce the variability of the RTT estimate?
 - Time series model

Grad students: extra problem

- Capacity and Available Bandwidth measurement:
- Look at the approaches proposed by the GTech and UCLA groups:
- <http://www.cc.gatech.edu/fac/Constantinos.Dovrolis/bw.html>
- http://www.cc.gatech.edu/fac/Constantinos.Dovrolis/Papers/ton_slops.pdf
- http://www.cs.ucla.edu/NRL/wireless/uploads/04_SIGCOMM_CapProbe.pdf

- Write a short note on why the problem is hard and what are the top 5 novel ideas in the papers.

Submission

- Submissions from each person to WebCT:
 - Source code;
 - Measured RTT outputs;
 - Report (i.e., RTT prediction model)
- All in text format.
- Use of perl script is strongly encouraged.
- Due next Tuesday Sept 5th, 11:55pm
- [Note: future assignments will be due on Sundays]

Discovery Problem: Optional

- Take a look at paper titles and abstracts in IMW and IMC (the top internet measurement conference)
- Make a list of 10 interesting measurement problems on the Internet; why they are interesting and hard.