6.883 – 5508   Problem Set 1
Due Feb 21, 2006

This exercise is aimed at making sure we know how to find, connect, and transfer transfer information between handheld devices. Some of these devices are located halfway around the world.

The very first thing you will need to do is to make sure your ipaq is alive and well. This means installing the right version of Linux and figuring out how to connect to it and run a python program. We do not know the status of each ipaq. You need not re-install linux on an ipaq that you are sharing, but you should know how to do it.

The main part of the problem set should be done individually.

1. geneerate pieces of information (s,a,n) as follows:

   - Select a subway station either in Boston (T-station) or Singapore (MRT-station).
   - Select an animal. This is for identification purposes, so try to pick something unique.
   - Pick (generate) a 32 bit random number.

2. write a program (in python) on your ipaq that will

   (a) communicate over a tcp socket with another ipaq in the class
   (b) exchange the three pieces of information

3. Communicate with at least two ipaqs: one on the same and one on the other side of the world.

4. Post on the class wiki the times you expect to be available and your ip address when you are available. You may also want to note if you are being a client or a server.

For extra credit, write a server that will allow everyone to publish their connect information in real-time and to read this information. This can replace the manual method of using the wiki.

You might find it easieer to first do this assignment on a laptop or pc before trying it on an ipaq.

Hand in your code and a list of the (s,a,n) triples you collected.