Name_____ _____/20 pts.

SE 4C03 Winter 2007

Lab Exercise 4

Instructor: William M. Farmer

Revised: 15 March 2007

Assigned: 16 March 2007
Lab report due: 16 March 2007

Do this lab exercise by yourself.

Configure your account to use public key authentication with the Secure Shell network service.

1. Make sure that RSA public key authentication is turned on in the SSH server configuration file (`/etc/ssh/sshd_config`). _____/ 2 pts.

2. Suppose your account name is n. Ask one of the other groups in the class to give you an account named n on their Little Internet host. (Do not use the `intruder` account for this purpose.) Let x denote your host and y denote the other host. _____/ 3 pts.

3. Use the command

   ```
   ssh-keygen -t rsa
   ```

   to create an RSA public key pair for your account on x (and an `.ssh` directory). You will have to enter a passphrase which will be used to encrypt/decrypt your private key. Name the private and public key files `id_rsa` and `id_rsa_x.pub`, respectively. Do the same on host y. _____/ 3 pts.

4. On both x and y, create a file named `authorized_keys` in the `.ssh` directory under your home directory. Make these two files readable and writeable by the owner only, and then put in both of them the contents of `id_rsa_x.pub` and `id_rsa_y.pub`. _____/ 3 pts.

5. Test the set up by executing

   `ssh -v` a_x

   on host x where a_x is one of the two IP addresses of x. Authenticate yourself with your passphrase instead of your password. The `-v` option for "verbose" will show each step of the process of creating an Secure Shell communication channel from your computer to itself.

   _____/ 3 pts.

6. Test the set up by executing

   `ssh -v` a_y

   on host x. Authenticate yourself with your passphrase instead of your password. _____/ 3 pts.

7. Test the set up by executing

   `ssh -v` a_x

   on host y. Authenticate yourself with your passphrase instead of your password. _____/ 3 pts.

8. **Demonstrate your set up of Secure Shell with public key authentication to the TA or instructor.**

After your demonstration, hand in your lab report consisting of the sheets of this exercise and a paper copy of your log book (if it is more convenient, you may hand this in at the beginning of the next lecture). If your log book is missing or incomplete, 4 points will be deducted from your mark. *You must hand the lab report in personally before the end of the lab session. If you do not attend the lab session or leave the lab before handing in the lab report, you will receive a mark of 0 for the lab exercise.*