Name________________________________ _____/20 pts.

Name________________________________

Name________________________________

SE 4C03 Winter 2001

Lab Exercise 6

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Lab report due: 11 April 2001

The Linux `ipfw` facility provides the capabilities to do IP packet filtering, proxying, address masquerading, and accounting. Working with your partner(s), write a shell script of `/sbin/ipfwadm` commands that enforces the IP network security policy below with (input, output, and forwarding) packet-filtering rules. Read the man pages for `ipfw` and `ipfwadm`. You may also want to look at the example given in `/usr/doc/HOWTO/NET3-4-HOWTO` and possibly read `/usr/doc/HOWTO/Firewall-HOWTO`.

Start your script off by flushing the `ipfw` packet-filtering rules with the commands

```
ipfwadm -I -f
ipfwadm -O -f
ipfwadm -F -f
```

After running the script, use the command

`ipfwadm -`X` -l -n`

to list the X rules (where X is `I`, `O`, or `F`) that have been installed in `ipfw`. Name the script `ipfw-ex-6`, put it in `/etc`, and make it readable by everyone.

IP Network Security Policy

1. Unless otherwise stated by this policy, all incoming, outgoing, and forwarded packets are accepted. _____/5 pts.

2. Incoming packets with a source address in the loopback subnet are denied (in the `ipfw` sense). _____/3 pts.

3. Forwarded TCP telnet packets are rejected (in the `ipfw` sense).
   _____/3 pts.

4. Incoming, outgoing, and forwarded TCP finger packets are rejected.
   _____/3 pts.

5. Incoming UDP packets with source addresses on the other side of the room from your host (hosts 1–7 or hosts 8–14) are rejected.
   _____/3 pts.

6. Outgoing UDP packets with destination addresses on the other side of the room from your host (hosts 1–7 or hosts 8–14) are rejected.
   _____/3 pts.

For your lab report, hand in this exercise sheet, a copy of your `ipfw-ex-6` file, and a copies of your log books.