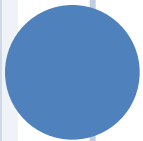


# **Homework 02**

**Announce: 20090408**

**Due: 20090420**



# Requirements

- Basic firewall settings (40%)
  - Set trusted network 140.113.235.0/24
    - Allow all connections from these hosts
  - Deny connections from 140.113.24.0/24
    - Log connections from these hosts
  - Deny ssh bruteforce attack
    - max-src-conn-rate
- Set up a FTP server inside jail (30%)
  - Set a private address for jail
  - Set NAT for your jail
  - Install a FTP server in the jail
    - Provide service on your public IP, port 21
    - Client can connect your FTP
- Setup a proxy with authentication (30%)
  - rdr on em0 proto tcp from !<authhost> to any port 3128  
-> 127.0.0.1 port 80

# Jail

- Jail -- imprison process and its descendants
  - jail(8)
- <http://www.freebsd.org/doc/en/books/handbook/jails.html>
- <http://lists.freebsd.org/mailman/listinfo/freebsd-jail>

```
jail_enable="YES"
jail_list="jail0 jail1 jail2 jail3 jail5"
# jail0
jail_jail0_rootdir="/usr/local/jails/jail0"
jail_jail0_hostname="jail0.lwhsu.csie.net"
jail_jail0_ip="192.168.173.100"
jail_jail0_interface="lo0"
jail_jail0_devfs_enable="YES"
jail_jail0_devfs_ruleset="devfsrules_jail"
jail_jail0_procfs_enable="YES"
jail_jail0_mount_enable="YES"
```

# Proxy with authentication

- Install a proxy server
  - [www/privoxy](http://www.privoxy.org)
  - [www/squid](http://www.squid-cache.org)
- Install a web server & design authentication procedure
  - Create a simple authentication web page
  - Redirect all un-authenticated client to authentication page
- Reference: [proxy.cs.nctu.edu.tw](http://proxy.cs.nctu.edu.tw)