

LightFTP Server

Implementation overview

- concurrent server
 - master process - daemon
 - slave process – forked process
- wrappers
 - CSocket class
- services - CFTPClient class
 - command handlers
 - DTP functions
- logging – syslog facility

CFTPClient

- command and data sockets
- file descriptor
- handlers
 - command arguments
 - send replies
 - transfer – done in main loop
- main loop
 - select on data and command sockets
 - some replies

Command handlers

- data structure
 - code
 - help message
 - callback
- callback
 - entire command
 - command argument
- replies
 - format strings for `sprintf()`

Authentication

- effective user id – BSDs `geteuid()`
- shadow passwords – root
- encryption – `crypt`
- „\$1\$xxxxxxxxx\$” sequence taken from `passwd`

File and directory handles

- process working directory
- access control enforced by OS
- umask
- transfer
 - done in main loop
 - correction functions for ASCII

Future work

- complete implementation
- revised replies
- security
- no-privileged authentication