Iteration 1 Test Plan

This document contains the test plan used to ensure compliance with the TFTP standard (RFC 1350). A description of the command line arguments and CLI commands available to each component is also included.

Description of Command Line Arguments and CLI commands

Client command line arguments

-t Enable test mode (transfers pass through the error simulator)
-q Enable quiet logging mode

Client CLI commands

read <filename>
write <filename>
shutdown
help

Server CLI commands

shutdown
help

Error Simulator CLI commands

shutdown
help

Basic Transfer Tests

File Sizes:
0 byte
200 byte
512 byte
2048 byte
100 000 byte

After each transfer the following checks will be performed:
1.Ensure that the MD5 checksum of the file at the source and destination match
2.Attempt to move the file out of the source and destination directories to ensure the file is not in use

Test Set Up

Ensure that the server and client run in different directories. This is the case in Eclipse by default
1. Start the server
2. Start the client
3. Create a file in the server directory corresponding to each of the file sizes listed below

Test Steps

For each file:
1. Read the file using the client.
2. Write the file using the client.

Concurrent Connections Tests

The following will be repeated for both read and write
1. Start the server
2. Start one instance of the client
3. Start a second instance of the client
4. Start the transfer of a 1 MB file using the first client instance
5. Start the transfer of a small (200 byte) file using the second client instance while the first client is still running the transfer
6. Ensure that both transfers run to completion

Error Simulator Tests

1. Start the server
2. Start the error simulator
3. Start the client, providing it the -t command line option
4. Use the client to write a 2048 byte file
5. Use the client to read a 2048 byte file
6. Perform the Concurrent Connections test with the –t option passed to both clients

Independent Implementation Tests

The purpose of these tests is to verify that the TFTP specification is followed by reading and writing files using an independent TFTP client and server

Server

1. Using an independent TFTP client, read a 2048 byte file
2. Using an independent TFTP client, write a 2048 byte file

Client

1. Using an independent TFTP server, read a 2048 byte file
2. Using an independent TFTP server, write a 2048 byte file