

CURTIN UNIVERSITY OF TECHNOLOGY
Department of Computing

Worksheet 10

1. Copy all the C program files from the UNIT DIRECTORY under `worksheets/practical10`, into your own home directory.
2. Compile and run the `checkopts.c` program to get the default values for your machine for the selected TCP and SCTP options.
3. Modify the TCP echo server-client programs from Practical 4 to be a one-to-one type SCTP programs.
 - Run the sctp server, and run two sctp clients to connect to the server.
 - Can you connect a TCP client to the SCTP server?
 - Can you connect a SCTP client to a TCP server?

Note the followings:

- Both `lsof -i` and `netstat -na` do not support sctp type.
 - For each client connection, the server creates one new process. You can check this by connecting two clients to the server, and use `ps`.
4. The `makesctps` and `makesctpc` are the *makefiles* for the SCTP Echo Server and the SCTP Echo Client programs (one-to-many type, from Stevens), respectively.
 - Create the executable for the server and the client programs (i.e., **`sctpserver01.out`** and **`sctpclient01.out`**).
 - Run the server on one machine, and run two clients to connect to the server on another machine.
 - Follow the server code to understand how to use the `sctp_sendmsg()` and `sctp_rcvmsg()`.

Note the followings:

- You need to use `-lsctp` to compile a one-to-many SCTP program.
 - The server does not create a new process for each client connection. However there is a unique association number for each client connection.
5. REMEMBER TO KILL YOUR RUNNING PROCESSES AFTER YOU FINISH YOUR PRACTICAL.