

EEL6935 Spring 11  
Homework 6  
Reliable Multicast with JGroups Toolkit

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## 1 Answers to Assignment Questions

- Are the file operations idempotent?  
The functions are all idempotent because no matter how many times they are called they will return the same result.
- List at least three differences between local and remote procedure calls.
  - Remote calls can involve a remote processor with it's own register file and cache values.
  - Remote calls involve putting the arguments and return values of a function in a serialized packet form for transfer over a network.
  - The call to a remote procedure must block execution on the caller.
- List the basic steps that take place on the client and server during an RPC.  
The client will call a local procedure that initiates a network transfer to the remote host. The host then process the request and returns a value to the network. The local procedure then returns the value to the caller.
- Does memory need to be freed on the client of server?  
Memory should be freed on the server so that multiple calls to the stub do not have erroneous data contained within. Also, the server can run constantly and good memory management is important to avoid memory leaks.