

1. Structure your networking code
2. Rapid development with netcat
3. Simulate real world with Network Link Conditioner



Single Responsibility Principle

Just because you can, doesn't mean you should

BAAAAAD!

```
@implementation ViewController
```



```
...
// Called when user taps 'enter' on the on-screen keyboard
- (BOOL)textFieldShouldReturn:(UITextField *)textField {

    // Write data to output stream.
    const char *data = [textField.text
                        cStringUsingEncoding:NSUTF8StringEncoding];
    NSInteger b = [outputStream write:data
                                maxLength:[textField.text length]];

    // Check for errors.
    if (bytesWritten == -1) {
        [self disconnect];
    }

    [self displayMessage:textField.text];
    [textField setText:@""];
    return YES;
}
...
@end
```

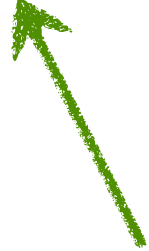


Good good good!

```
@implementation ViewController
...
// Called when user taps 'enter' on the on-screen keyboard
-(BOOL)textFieldShouldReturn:(UITextField *)textField {

    // Networking code nicely encapsulated
    [[NetworkController sharedInstance] sendMessage:textField.text];

    [self displayMessage:textField.text];
    [textField setText:@""];
    return YES;
}
...
@end
```



NetworkController

Sockets

Streams

Buffers

Event handling

Protocol

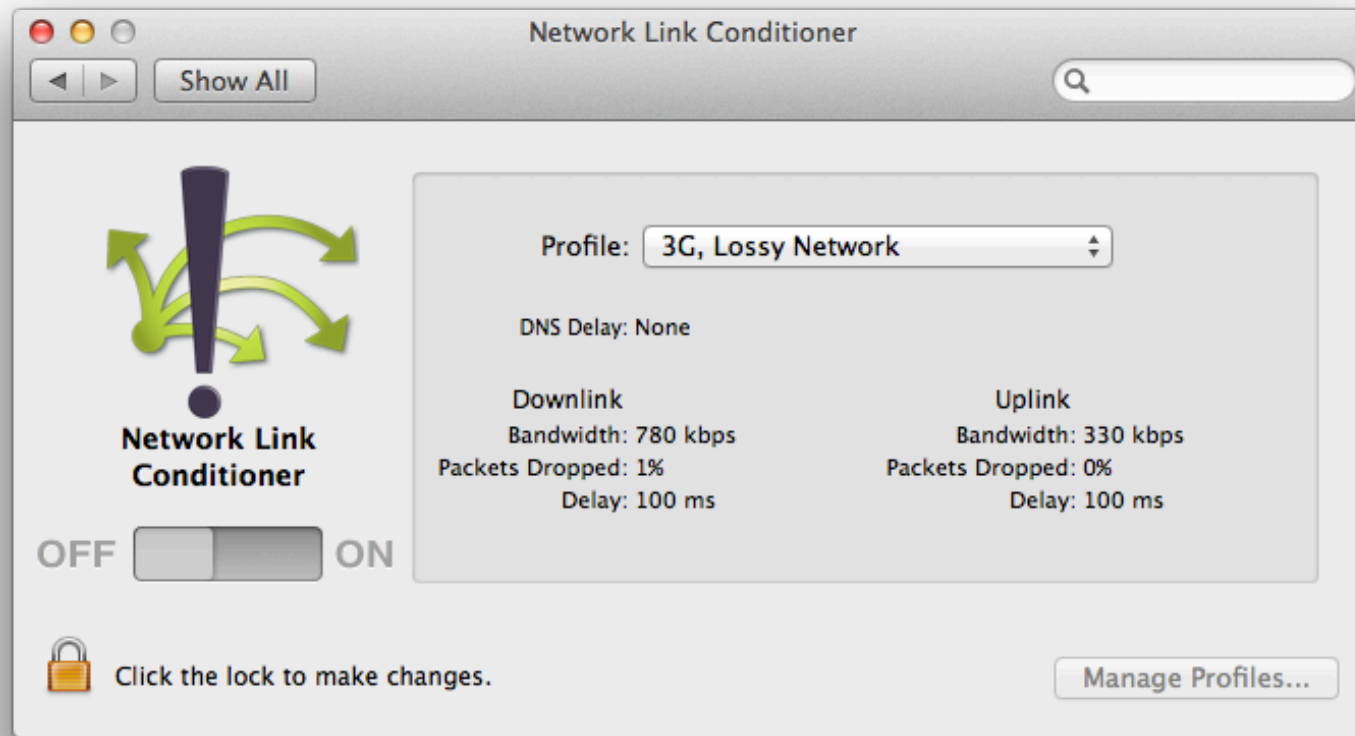
```
@interface NetworkController : NSObject<NSStreamDelegate> {  
    // Connection info  
    NSString* host;  
    int port;  
  
    // Input  
    NSInputStream* inputStream;  
    NSMutableData* inputBuffer;  
    BOOL inputStreamOpen;  
  
    // Output  
    NSOutputStream* outputStream;  
    NSMutableData* outputBuffer;  
    BOOL outputStreamOpen;  
  
    // Event handlers  
    MessageBlock messageReceivedBlock;  
    ConnectionBlock connectionOpenedBlock;  
    ConnectionBlock connectionFailedBlock;  
    ConnectionBlock connectionClosedBlock;  
}
```



netcat
is your friend

Start server:

```
nc -k -l <port>
```

/Developer/Applications/
Utilities/Network Link
Conditioner

Summary

1. Encapsulate networking code.
2. Use 'nc' to rapidly develop and test.
3. Test on slow network before releasing.

github.com/byteclub/SimpleSocketConnection

@byteclub