Assignment 3

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1 Plan for Implementation

For this project we plan on first finding a simple block device similar to the one in the Linux Device Drivers book that will work with our kernel. Once we have found one that works with our kernel we will then add the cryptography to it.

2 Version Control Log

3 Work Log

4 Project Questions

4.1 Main point of the assignment

The main point of this assignment was to learn how linux modules and device drivers work, as well as gaining some experience with linux's crypto api.

4.2 How did we approach the problem

We began by finding a working block device driver to use as a base. Then we looked for examples where linux's cryptographic tools were used to determine how to add encryption to the device. We chose to use AES as our block cipher with a default key of all zeros when the module parameter is blank.

4.3 What did we learn

We learned that all linux documentation is terrible. We also learned about manipulating block ciphers in linux and setting module parameters, and loading them into linux. we also had to mount a block device and create a filesystem for it.