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Thesis Outline
(Implementing Security for Cloud Based Storage Systems)

Abstract

Introduction

- Problem statement
    - The usage of cloud based storage systems does not ensure full security of files or directories.
    - If sensitive files are uploaded to a cloud based storage system such as dropbox and google docs, they need to be made secure for the users
- Overall aims
    - Create a privacy layer for software such as google docs and dropbox.
    - Allows for securing of files and directories that will be uploaded into the cloud utilizing the API for the respective software
- Motivation and background
    - Create a further security aspect for everyday tools

Related Works

- Will be utilizing the APIs for Google Docs and Dropbox.
    - Documentation
- Related articles
    - https://www.gradiant.org/images/stories/2010_cloudviews_googledocsprivacy.pdf
    - https://dl.acm.org/citation.cfm?id=1774259

Methods

- Develop test files / directories
    - Utilize the software that provides cloud storage. (Google docs, Dropbox)
- Encrypt the files or directories
    - Generate user tokens to allow for decryption when necessary
- Upload files or directories to the cloud
- Check for security of files
- Download files from cloud
    - Decrypt files utilizing tokens

- Check the overall quality of files and directories

Evaluation Strategy

- Files must stay secure during all stages of the process
- Encryption must be adequate enough to ensure security

Research Schedule

- Phases (Tentative Schedule October - March)
    - Phase 1 - Further Research
    - Phase 2 - Begin early development
    - Phase 3 - Further development
    - Phase 4 - Testing / Evaluation
    - Phase 5 - Writing