Capstone Progress Report Winter 2017 Midterm

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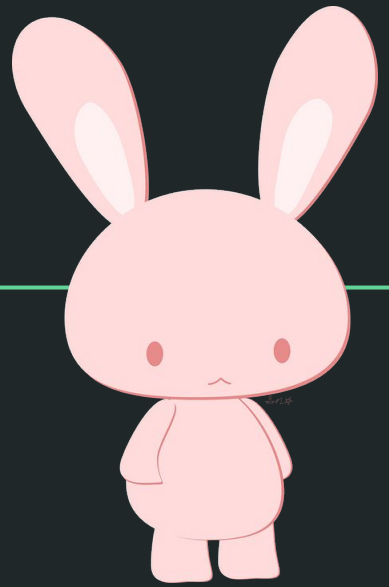
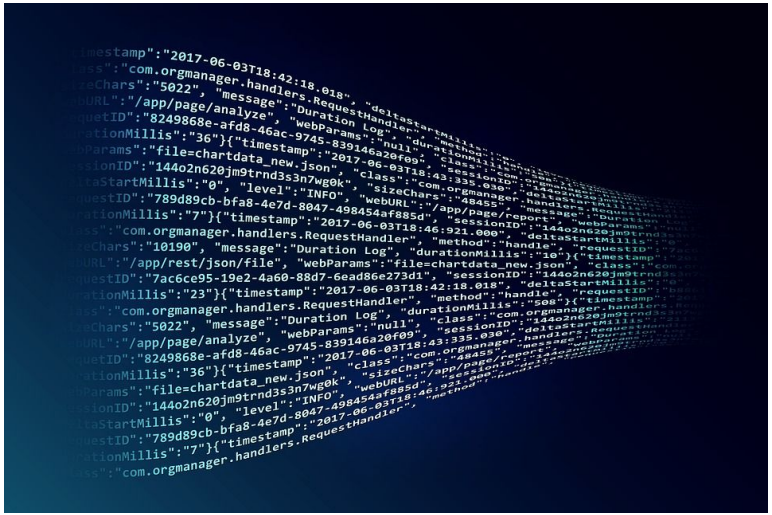
The Secret Bunny Team: Privacy Preserving Cloud & Email Encryption



Project overview

Privacy Preserving Cloud & Email Encryption

The ”Privacy Preserving Cloud, Email and Password Manager” Capstone project is a research-oriented project that aims to find a way to implement the DSSE scheme proposed by David Cash.

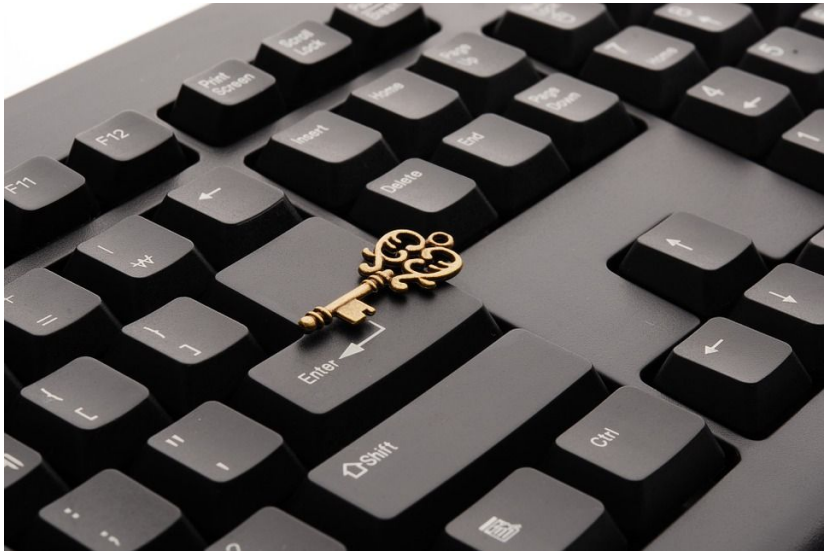


Last term (recap)

Current Progress

What we’re working on currently

- DSSE Algorithm
- POP3 Email Integration
- Tokenization
- Update/Delete

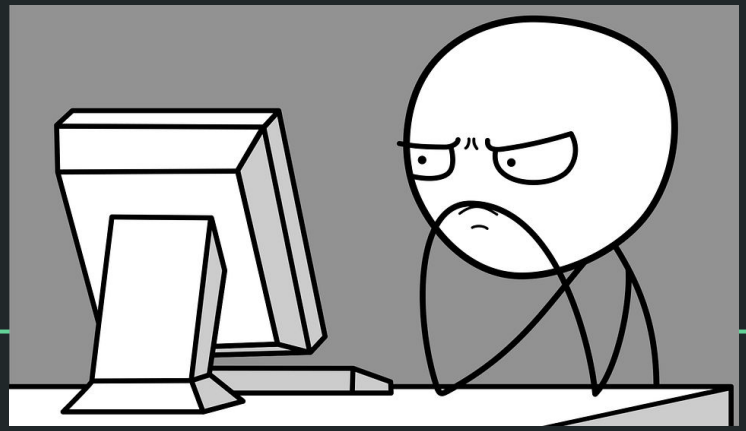


Future plans

Future Project Implementations

- Cloud Integration
- Benchmarking
- Parallelization/Optimization

Retrospective



Problems

- mysterious linker errors with mailio and boost
- getting gmail to send repeated emails for testing
- meeting problems
  - TA MIA
  - Attila sick week 3
  - Team communication/meetings

What went well?

- Our code compiles :)
- Successful implementation of Libraries
- Discussion Progress with Client/TA

Plans for 2nd half of Term

- Our client has sent us in a small change of focus
- Our main focus is getting the three levels of the core DSSE implemented.
  - The idea behind this, is the core DSSE is the more challenging part and the most important for research purposes.
  - Optimization and Implementation of Cloud/Server will come after, as they are not the main reason for this project.

Live Demos

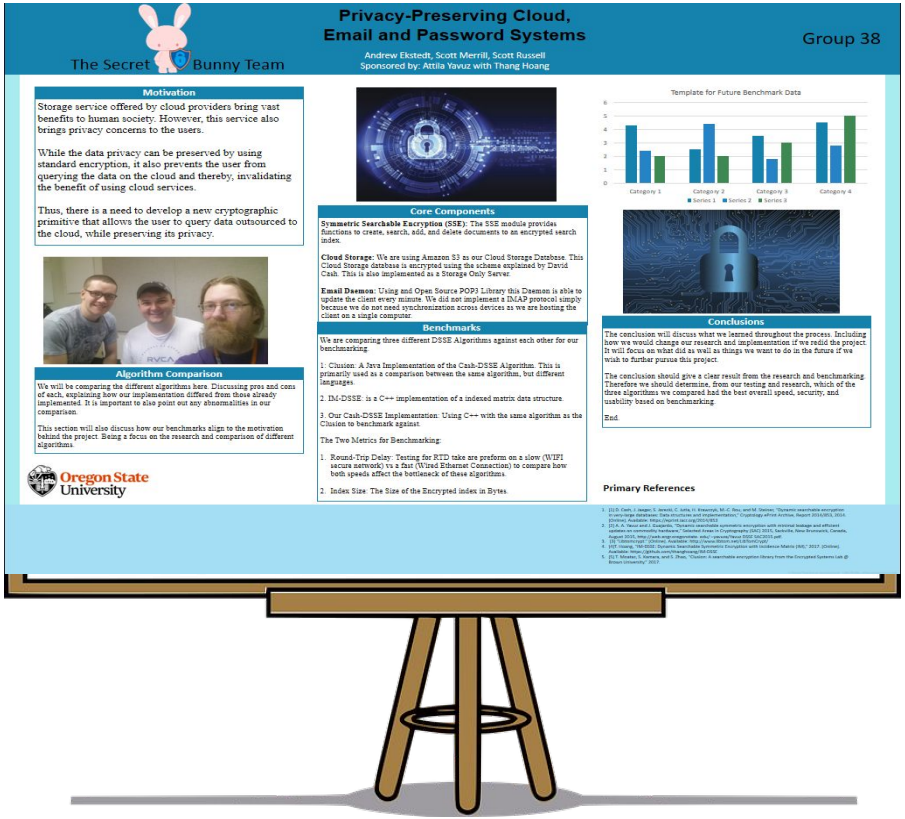
POP3 Email Demo

- Mailio Library
- Email Setup
- Script Examples for pulling emails.

Client/Server demo

- Live demo of client/server interaction
- Code walk-through

Planning for Engineering Expo



- What we plan to do to display our code at expo
- Things we may need
- Anything we still need to work out:
  - Example: Is there going to be a live display?

Conclusion

Image Sources

1. https://pixabay.com/en/analytics-information-innovation-3088958/
2. https://pixabay.com/en/keyboard-key-success-online-621830/
3. https://pixabay.com/en/cloud-computing-computers-2116773/
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