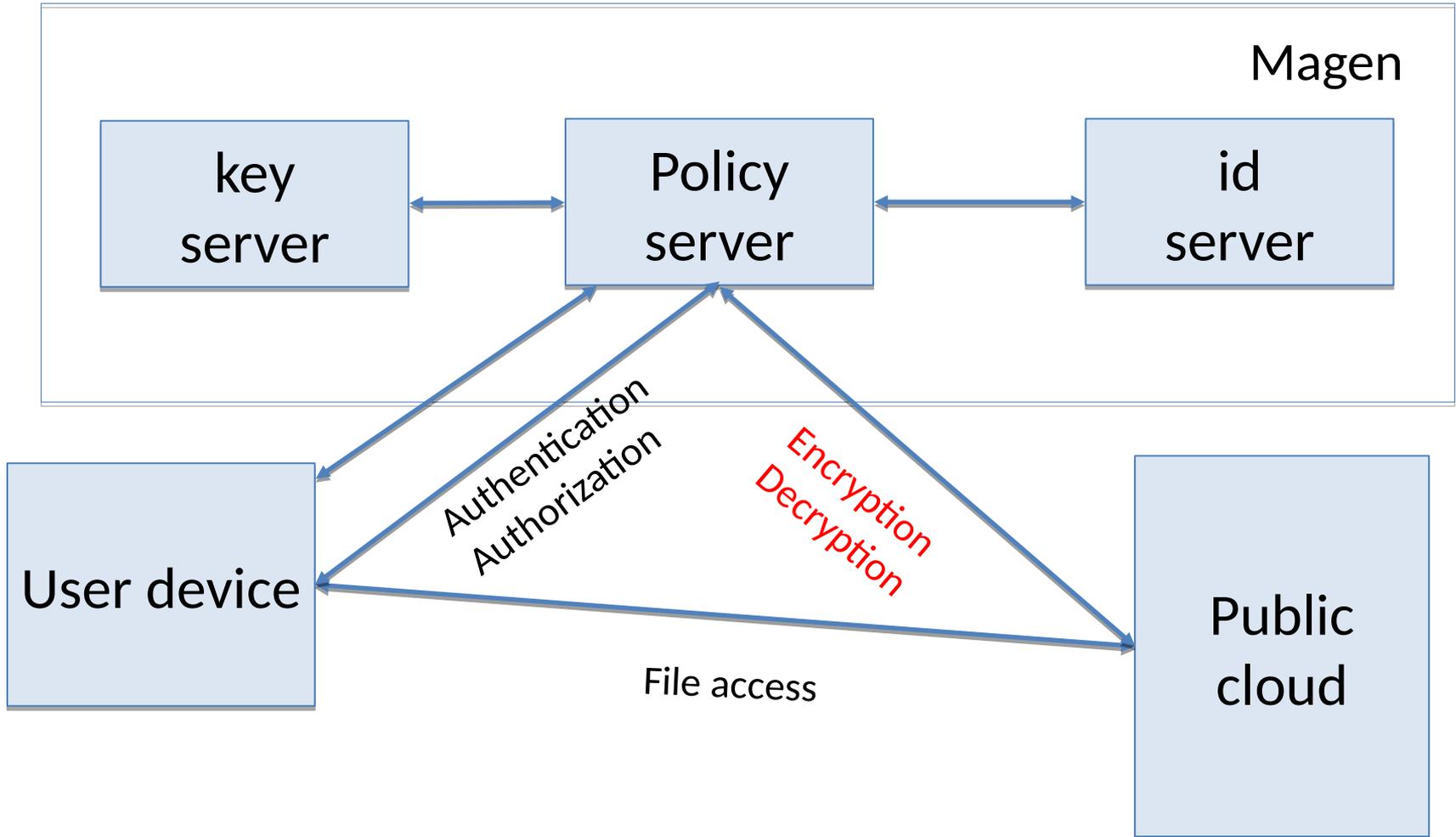


# Data Leak Prevention

- Alena
- Reinaldo
- Cristel
- Randy

- Enterprise use public clouds
- Data at rest vulnerable to leaks
- The number of data breaches in the last 5 years is huge. It includes governments, retail, credit agencies, movie studios, etc.
  
- Encryption of data at rest
- How to ensure sharing?

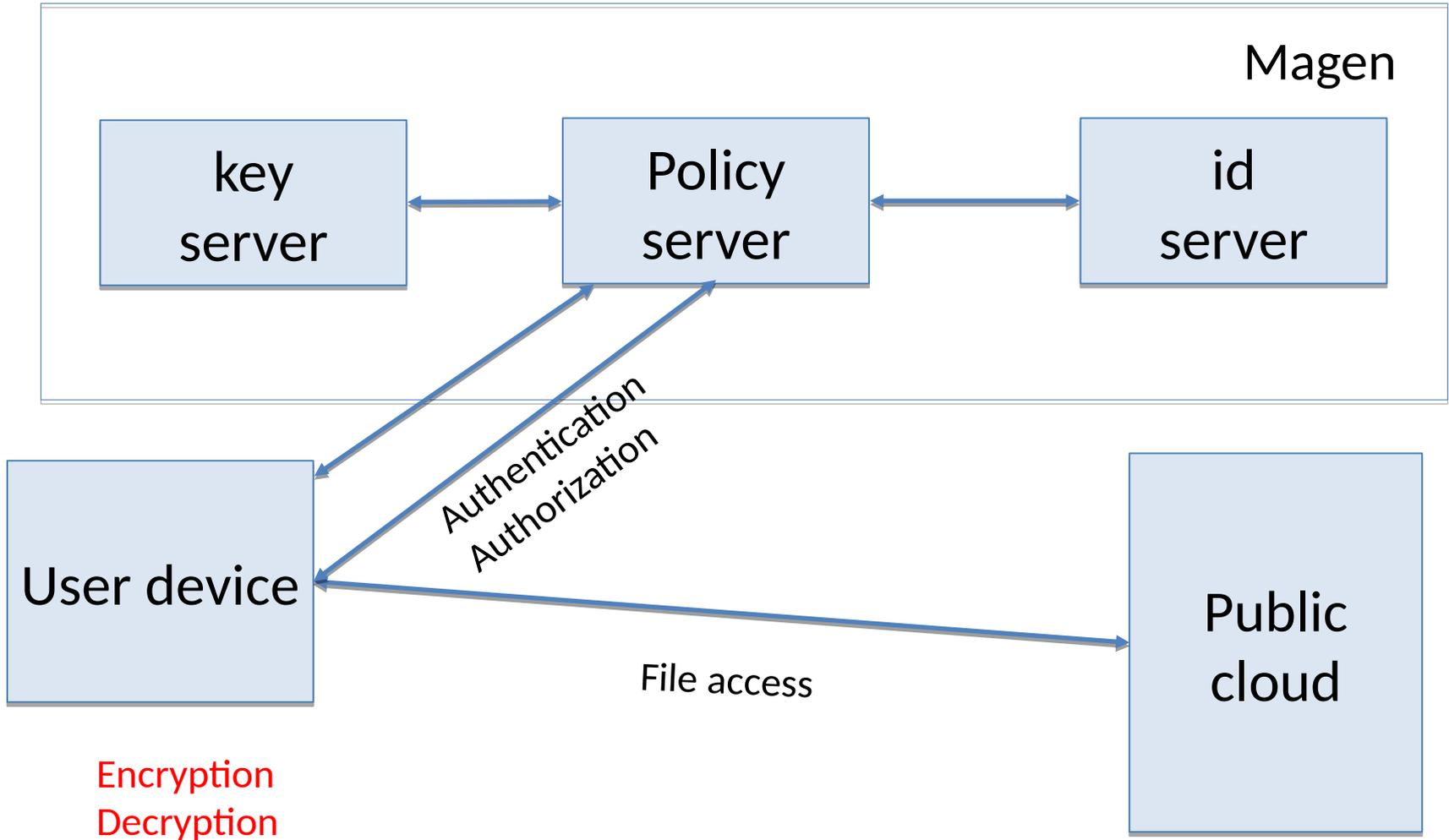
# Enforcing authorization policies: Magen



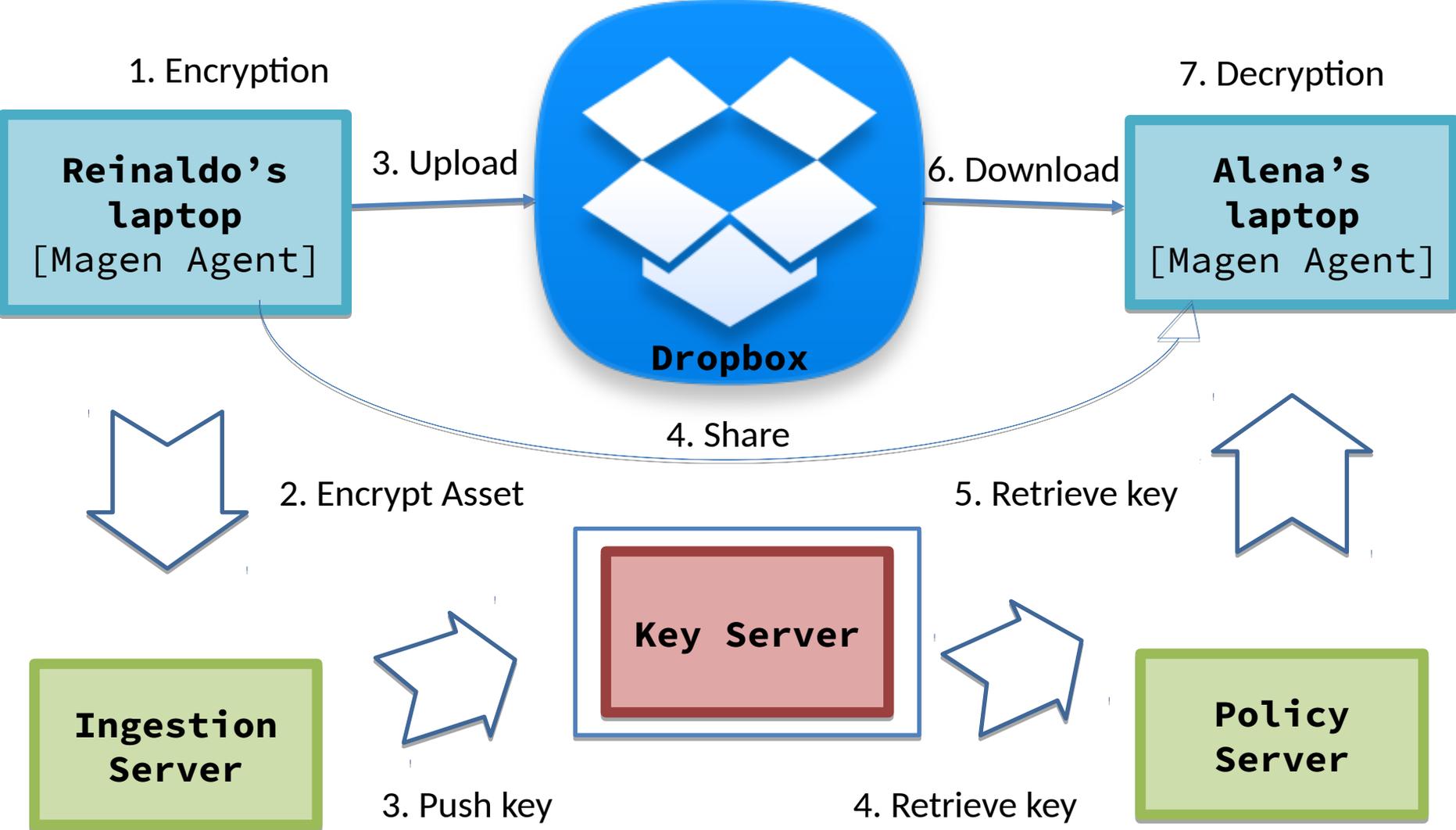
# Problem

- Two days ago Magen was pushing temporary unencrypted files to the cloud before serving to the user

# New flow of interaction



# Demo



# DropBox Empty



Files

**My files**

Sharing

File requests

Deleted files

Deleted 1 item. [Undo](#)

Dropbox > Apps > hackathonsin

 Try Dropbox Business



[Share folder](#)

Only you have access

[Upload files](#)

[New folder](#)

[Show deleted files](#)

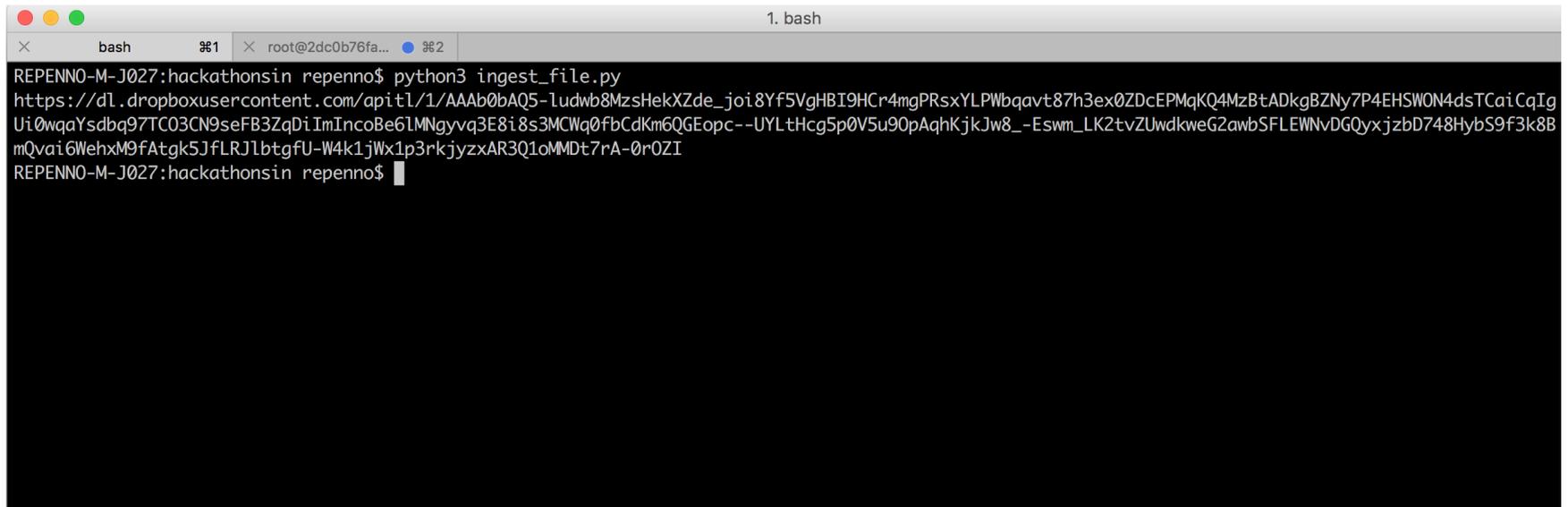
**This folder is empty**  
Drag and drop files onto this window to upload.



Unlock more features.  
Try Dropbox Business!

[Upgrade now](#)

# Create and Publish Encrypted File



```
1. bash
bash
root@2dc0b76fa...
REPENNO-M-J027:hackathonsin repenno$ python3 ingest_file.py
https://dl.dropboxusercontent.com/api/tl/1/AAAb0bAQ5-ludwb8MzsHekXZde_joi8Yf5VgHBI9HCr4mgPRsxYLPWbqavt87h3ex0ZDcEPMqKQ4MzBtADkgBZny7P4EHSWON4dsTCaiCqIg
Ui0wqaYsdbq97TC03CN9seFB3ZqDiImIncoBe61MNgvq3E8i8s3MCWq0fbCdKm6QGEopc--UYLtHcg5p0V5u90pAqhKjkJw8_-Eswm_LK2tvZUwdkweG2awbSFLEWNVdGQyxjzbd748HybS9f3k8B
mQvai6WehxM9fAtgk5JfLRJlbtgfU-W4k1jWx1p3rkjyzxAR3Q1oMMDt7rA-0r0ZI
REPENNO-M-J027:hackathonsin repenno$
```

# Dropbox with Shared File

Dropbox > Apps > hackathonsin

Try Dropbox Business

Search

1 item selected

<input checked="" type="checkbox"/>	Name ↑	Modified ↓	Members ↓	
<input checked="" type="checkbox"/>	{ } test_up.txt.html	0 secs ago	Only you	Share

Share

Only you have access

- Share link
- Open
- Add comment
- Star
- Version history
- Rename
- Move
- Copy
- Delete

# Shared File is Encrypted at Rest

< test\_up.txt.html ☆  
Modified just now

Share Open ... 🔔

Comments Activity ↗

RP Write a comment 😊 👤+

Post a comment to start a discussion.  
[@Mention](#) someone to notify them.

To preview this file, use the Magen Viewer.

# Share Link



W4k1jWx1p3rkjyzxAR3Q1oMMDt7rA-0rOZI  
You 12:46 PM

[https://dl.dropboxusercontent.com/apitl/1/AAAAb0bAQ5-ludwb8MzsHekXZde\\_joi8Yf5VgHBI9HCr4mgPRsxYLPWbqavt87h3ex0ZDcEPMqKQ4MzBtADkgBZNY7P4EHSWON4dsTCaiCqlgUi0wqaYsdbq97TCO3CN9seFB3ZqDilmlncoBe6lMNgvq3E8i8s3MCWq0fbCdKm6QGEopc--UYLthcg5p0V5u9OpAqhKjkJw8\\_-Eswm\\_LK2tvZUwdkweG2awbSFLEWNvDGQyxjzbD748HybS9f3k8BmQvai6WehxM9fAtgk5JfLRJlbtgfU-W4k1jWx1p3rkjyzxAR3Q1oMMDt7rA-0rOZI](https://dl.dropboxusercontent.com/apitl/1/AAAAb0bAQ5-ludwb8MzsHekXZde_joi8Yf5VgHBI9HCr4mgPRsxYLPWbqavt87h3ex0ZDcEPMqKQ4MzBtADkgBZNY7P4EHSWON4dsTCaiCqlgUi0wqaYsdbq97TCO3CN9seFB3ZqDilmlncoBe6lMNgvq3E8i8s3MCWq0fbCdKm6QGEopc--UYLthcg5p0V5u9OpAqhKjkJw8_-Eswm_LK2tvZUwdkweG2awbSFLEWNvDGQyxjzbD748HybS9f3k8BmQvai6WehxM9fAtgk5JfLRJlbtgfU-W4k1jWx1p3rkjyzxAR3Q1oMMDt7rA-0rOZI)



# Link Received

RP

Reinaldo Penno 12:10 PM

[https://dl.dropboxusercontent.com/apitl/1/AAAAb0bAQ5-ludwb8MzsHekXZde\\_joi8Yf5VgHBI9HCr4mgPRsxYLPWbqavt87h3ex0ZDcEPMqKQ4MzBtADkgBZNy7P4EHSWON4dsTCaiCqIgi0wqaYsdbq97TCO3CN9seFB3ZqDilmlncoBe6IMNgyvq3E8i8s3MCWq0fbCdKm6QGEopc--UYLtHcg5p0V5u9OpAqhKjkJw8\\_-Eswm\\_LK2tvZUwdkweG2awbSFLEWNvDGQyxjzbD748HybS9f3k8BmQvai6WehxM9fAtgk5JfLRJlbtgfU-W4k1jWx1p3rkjyzxAR3Q1oMMDt7rA-0rOZI](https://dl.dropboxusercontent.com/apitl/1/AAAAb0bAQ5-ludwb8MzsHekXZde_joi8Yf5VgHBI9HCr4mgPRsxYLPWbqavt87h3ex0ZDcEPMqKQ4MzBtADkgBZNy7P4EHSWON4dsTCaiCqIgi0wqaYsdbq97TCO3CN9seFB3ZqDilmlncoBe6IMNgyvq3E8i8s3MCWq0fbCdKm6QGEopc--UYLtHcg5p0V5u9OpAqhKjkJw8_-Eswm_LK2tvZUwdkweG2awbSFLEWNvDGQyxjzbD748HybS9f3k8BmQvai6WehxM9fAtgk5JfLRJlbtgfU-W4k1jWx1p3rkjyzxAR3Q1oMMDt7rA-0rOZI)

RP



Write a message to Reinaldo Penno

# Magen Local Agent

 ABP

0.0.0.0



Assets Repository

M-HWA Home

## Magen Agent for User2 (Demo v0.1)

[Home](#)[Repository](#)[Download](#)

---

## Magen Local Agent (Demo version 0.1)

Magen Agent represent a native local Agent that performs Encryption and Decryption Data that will be stored in a Cloud Application (Box, Dropbox, GoogleDrive). Magen Agent showcases an ability to share an encrypted file between User1 and User2. User2 receives an encrypted file and attempts to open it. If access is granted, file is decrypted. If no decrypt operation performed, the User unable to open a file.

# Magen Assets Repository

ABP

0.0.0.0



Assets Repository

Assets Repository

## Magen Agent for User2 (Demo v0.1)

[Home](#)

[Repository](#)

[Download](#)

## Ingested Assets

test.txt

[View](#)

[RawView](#)

test\_container.txt.html

[View](#)

[RawView](#)

# Download Asset to Magen Agent

ABP

0.0.0.0



Download a link to a Magen Agent space

Download a link

## Magen Agent for User2 (Demo v0.1)

Home

Repository

Download

## Download Form

Download & Decrypt

# Asset added to Magen Repo



0.0.0.0



Assets Repository

Assets Repository

## Magen Agent for User2 (Demo v0.1)

Home

Repository

Download

### Ingested Assets

test.txt

[View](#)

[RawView](#)

test\_container.txt.html

[View](#)

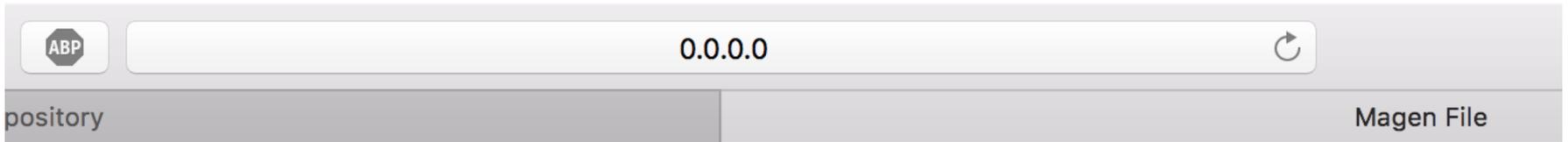
[RawView](#)

test\_up.txt.html

[View](#)

[RawView](#)

# View Asset without Decrypt



**To preview this file, use the Magen Viewer.**

# Decrypt Asset and View



localhost



Magen Agent for User2 (Demo v0.1)

Home

Repository

Download

---

## Decrypted Asset

this is a test