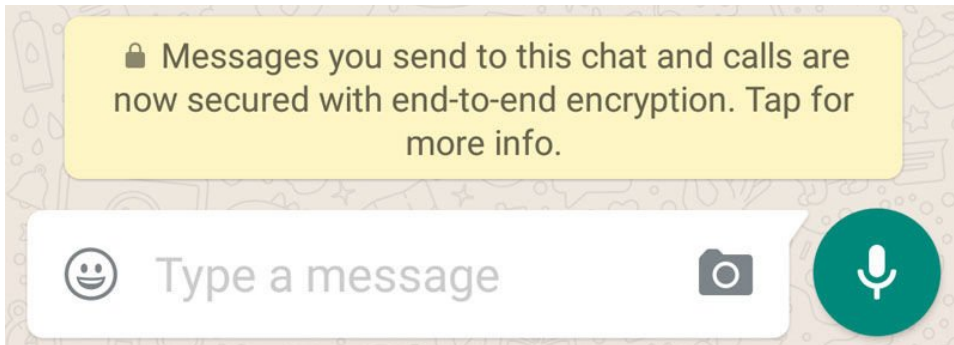
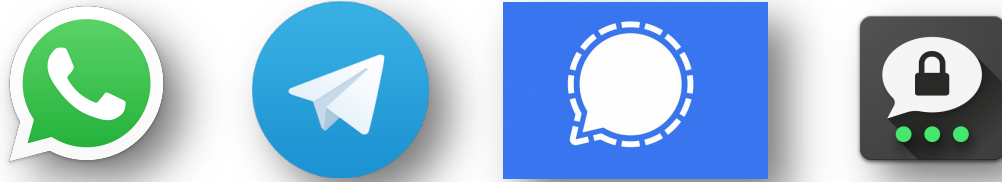


# ABEBox: end-to-end encryption for file sharing cloud services

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# End to end encryption in file sharing



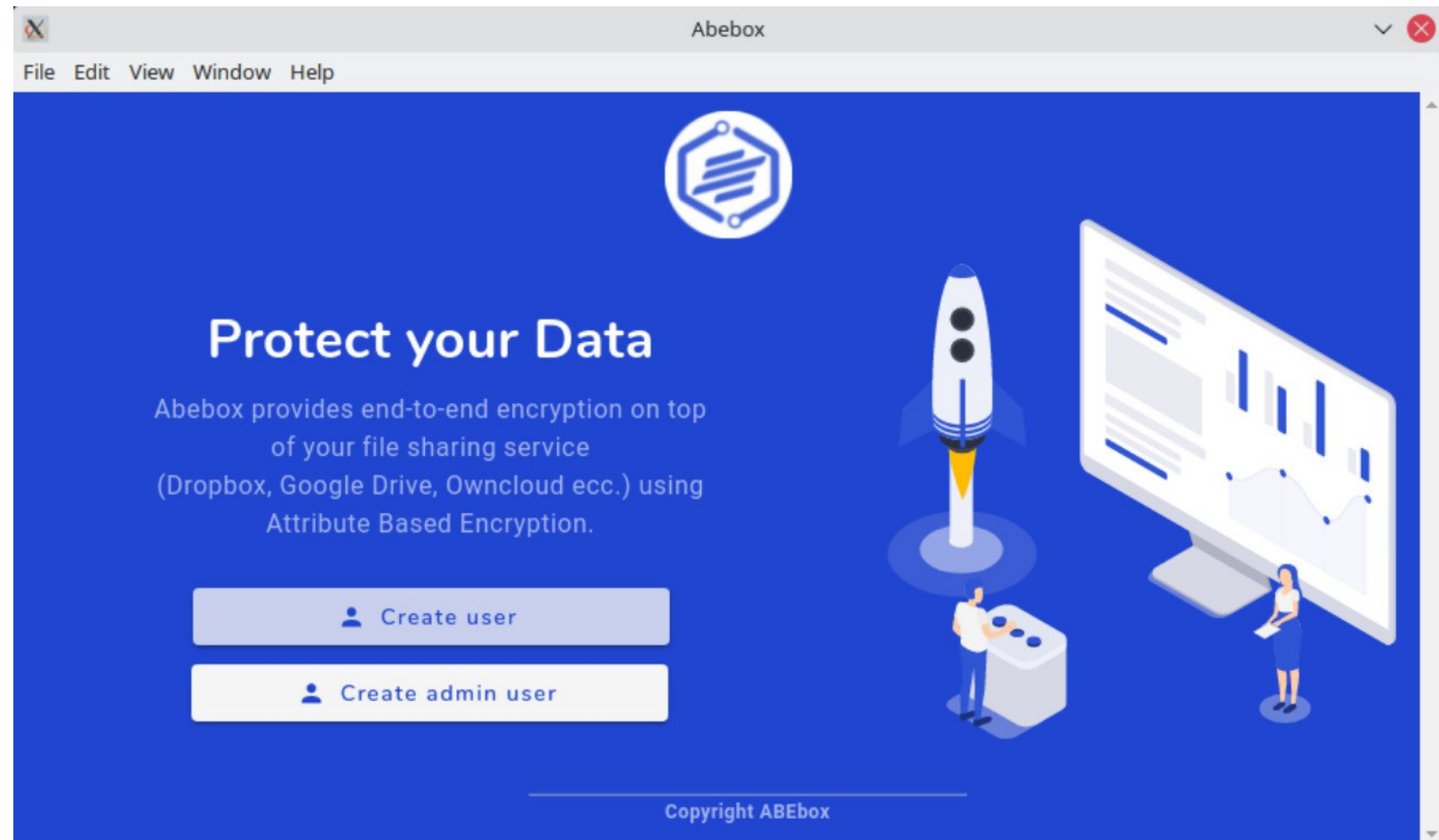
# ABEBox: Attribute Based Encryption for E2EE

- **Key management system** to bring privacy on cloud shared files
  - Without any Trusted Third Party
- It **decouples** *access control* from *data transferring and synchronization*
- It runs **on top** of existing file sharing services (EFSS)
  - Serverless
- Provide solutions for peer **churn**
  - New users and revoked ones

# The ABEBox application

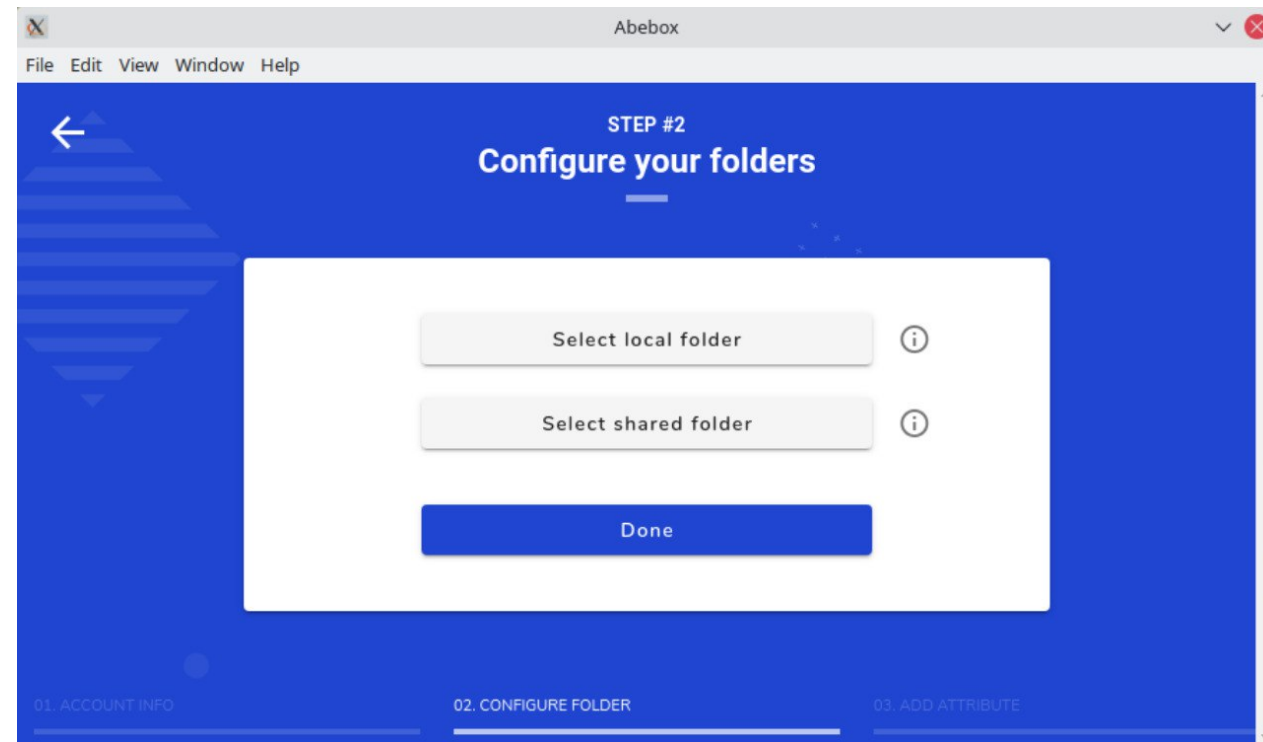


- Multi platform app
  - Win, linux, mac
  - Build with Electron
- GUI for configuration
  - policies, attributes, users
- First use of ABE on JS world





# ABEBox operational flow

- Invited User or Admin?
- Users
  - Select folders
  - Insert token
- Admin
  - Set attributes
  - Add users, assign them attributes and get their tokens
  - Select folders














# ABEBox

Name	
 myfile1.png	
 myfile2.json	

Plaintext files local folder



Name	
▼ repo	
 8382162a-7749-45b3-903d-4297afaf2dde.abebox	
 8382162a-7749-45b3-903d-4297afaf2dde.0	
 0110cc21-7364-4154-b630-58fab6b0464a.abebox	
 0110cc21-7364-4154-b630-58fab6b0464a.0	
 27a10020-97e8-4cb8-8d86-1ac96e60118e.abebox	
 27a10020-97e8-4cb8-8d86-1ac96e60118e.0	
▼ pub_keys	
 826ba2465fd23d46ad20...ba75298876b94f7324cf	
 7a9ac3d62f4eeaf2c0946...9349ddabeb4a411318df	
▼ keys	
 826ba2465fd23d46ad20...75298876b94f7324cf.sk	
 7a9ac3d62f4eeaf2c0946...49ddabeb4a411318df.sk	
▼ attributes	
 attributes_list.json	

Shared folder

# Thanks!

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*Innovation programme*



<http://abebox.netgroup.uniroma2.it/>

*binaries*

<https://github.com/netgroup/abebox-electron>

*code*



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