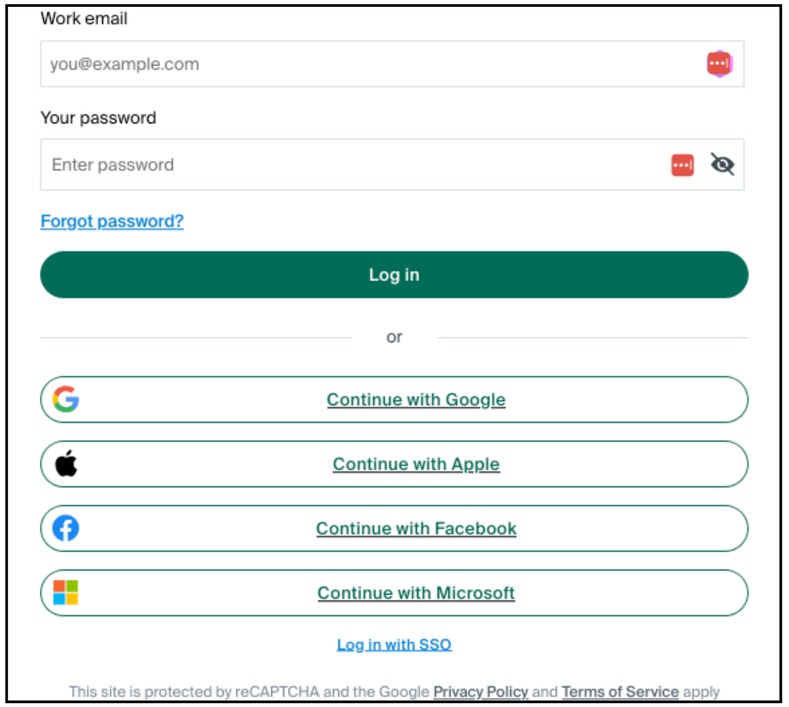
Identity management

Identity management

- Single sign on (SSO)
  - Authenticate to SSO provider
  - Provider shares information
  - Info stored at provider
  - Provider is always online



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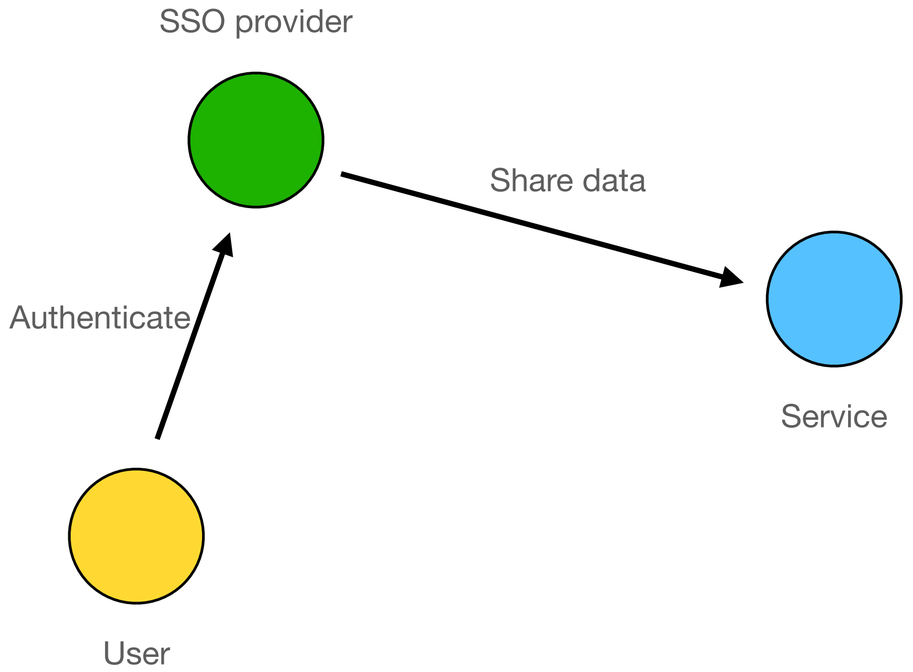
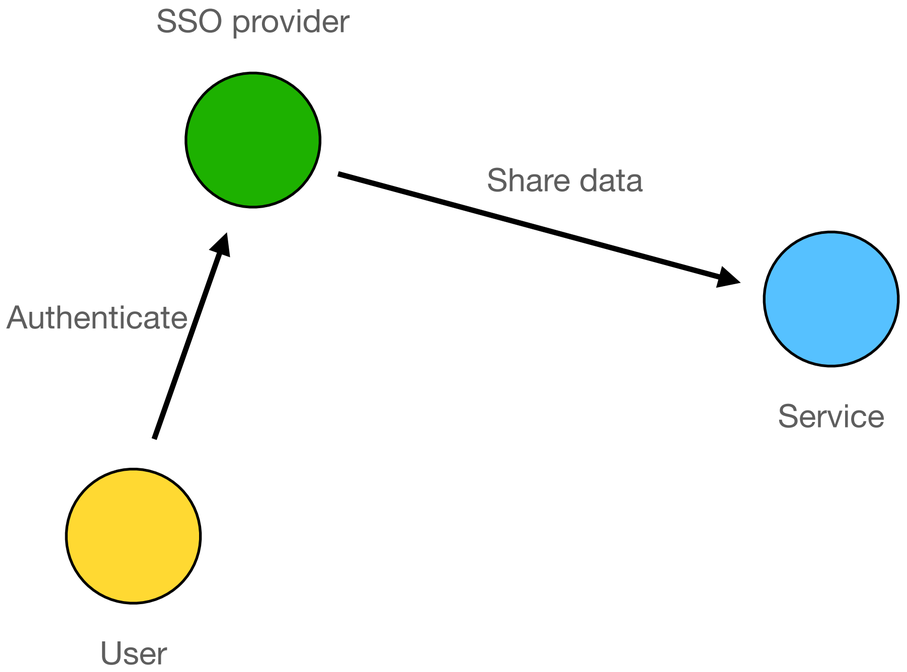


Identity management

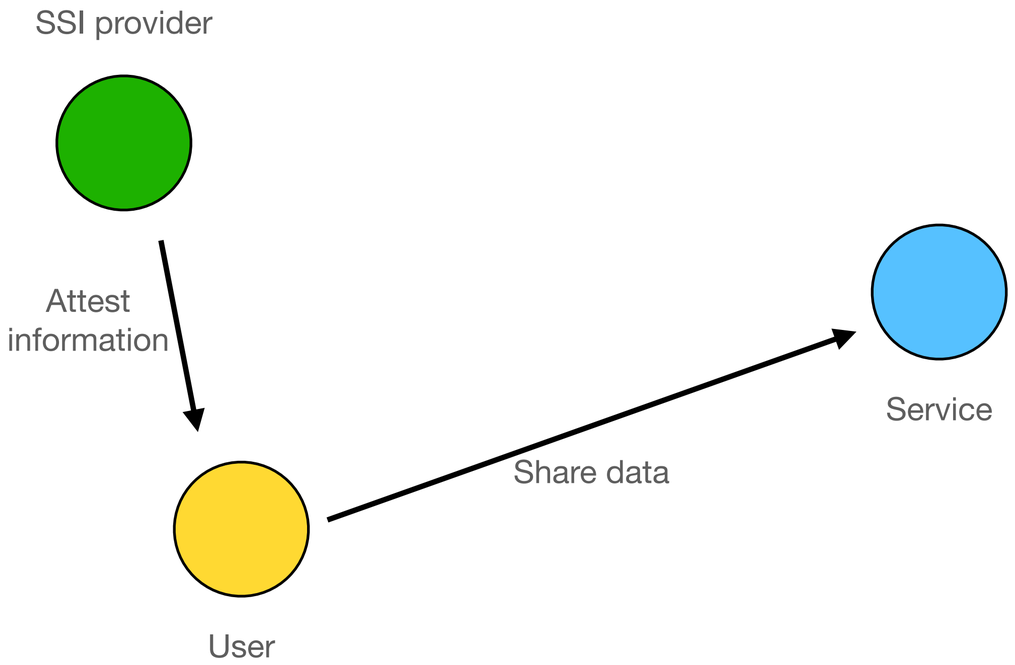
- Single sign on (SSO)
  - Provider single point of failure
  - What does the provider learn about me?
  - What information does the provider share?



Identity management

Self souverain identity

- Self souverain identity (SSI)
  - SSI provider attests information
  - User stores and shares his information
  - Authentication through digital signatures.



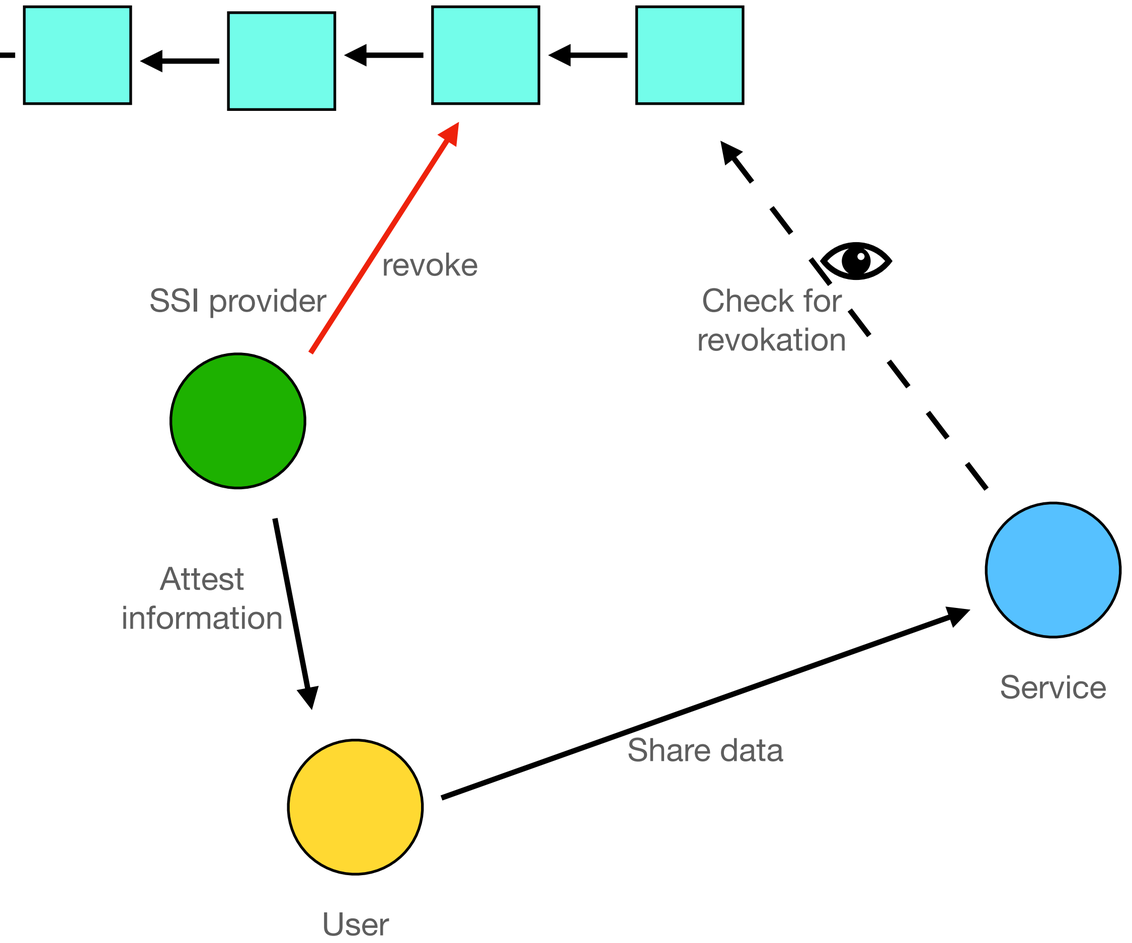
Identity management

- Single sign on (SSO)
  - Provider single point of failure
  - What does the provider learn about me?
  - What information does the provider share?
- Self souverain identity (SSI)
  - Need to deal with key-management
  - How to revoke?

Identity management

Self souverain identity

- Self souverain identity (SSI)
  - SSI provider attests information
  - User stores and shares his information
  - Authentication through digital signatures
  - Service must check for revokation



DePIN

DePIN

Decentralized physical infrastructure

Idea:

- Different people contribute infrastructure to a service,
  storage space, sensor data, network bandwidh, GPU resources
- Contributors receive rewards in tokens.
- Users pay tokens for use of infrastructure.

DePIN

Decentralized physical infrastructure

Example:

- Run a storage server on FileCoin, Storej, …
- Drive around with a dashcam for google maps like data
- Sell your browser history for advertisement

DePIN

Decentralized physical infrastructure

Two modes:

- Reward per use:

  redistribute tokens from paying users

- Reward availability

  minting tokens

DePIN

Decentralized physical infrastructure

Two modes:

- Reward per use:

  Many transactions

  How to ensure infrastructure is available

DePIN

Decentralized physical infrastructure

Two modes:

- Reward availability

  How to check resources are available?

  How to ensure quality of service?