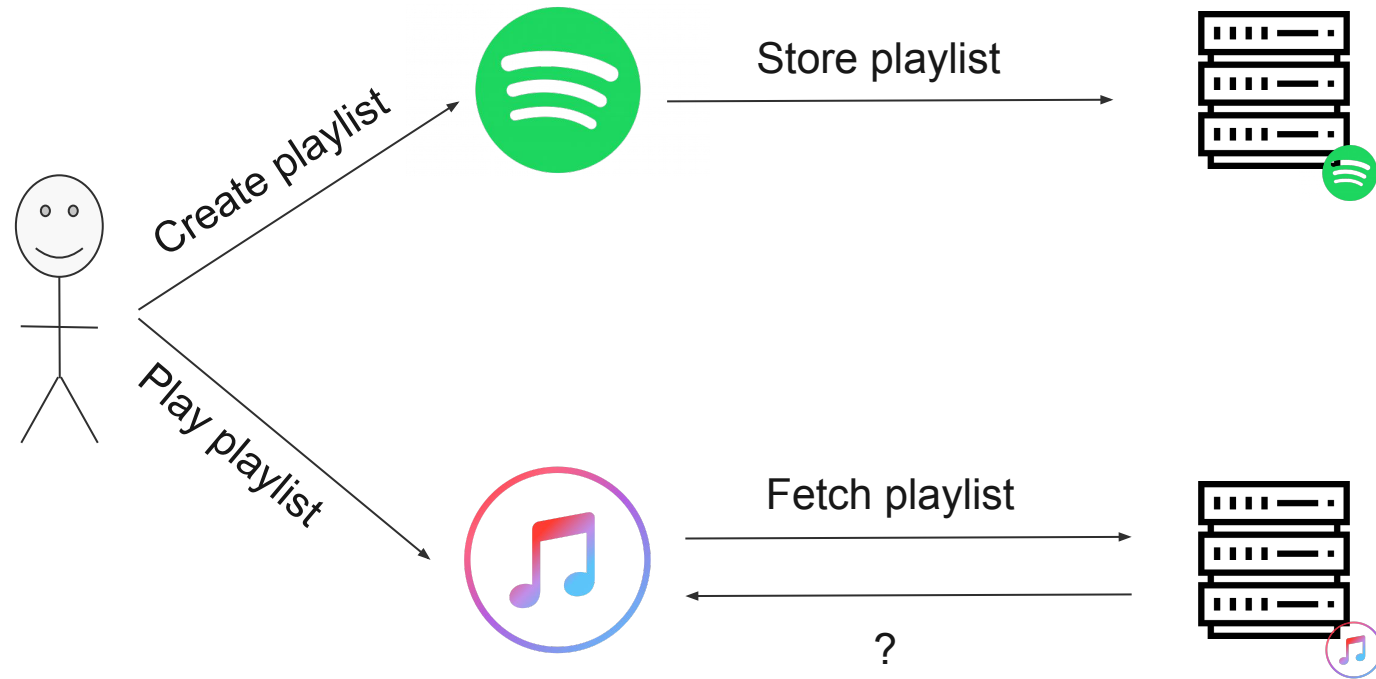


Solid: an open standard for structuring data, digital identities, and applications on the Web

Jesse Geens (IT-SD-GSS)

08/11/2024

The current state of the Web



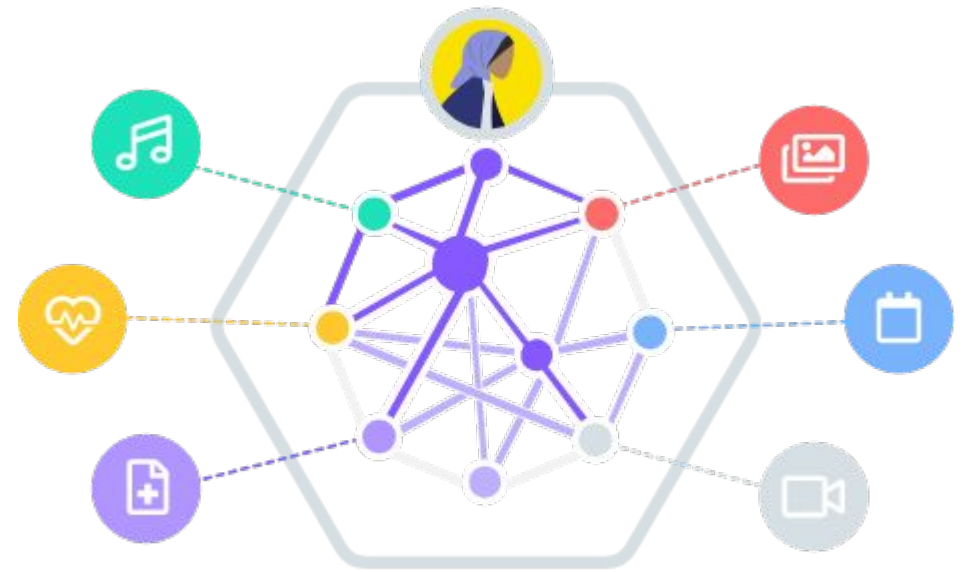
Questions I have as a user

- Why can I not use my data across apps?
- Which data does Spotify have on me?
- Who has access to this data?
- How can I easily revoke access to my data?
- How do I get a copy of my data?



Let's imagine a better world

- I can sign in everywhere with a single account
- I have my own data space with all my data stored in it
→ in a standardised format
- I can give applications that I use access to my data, and use the same data across applications



The solution: Solid

Solid is a specification that lets people **store their data securely** in **decentralized** data stores called **Pods**.

- pod = secure personal web server for data
- users control which people and applications can access the data

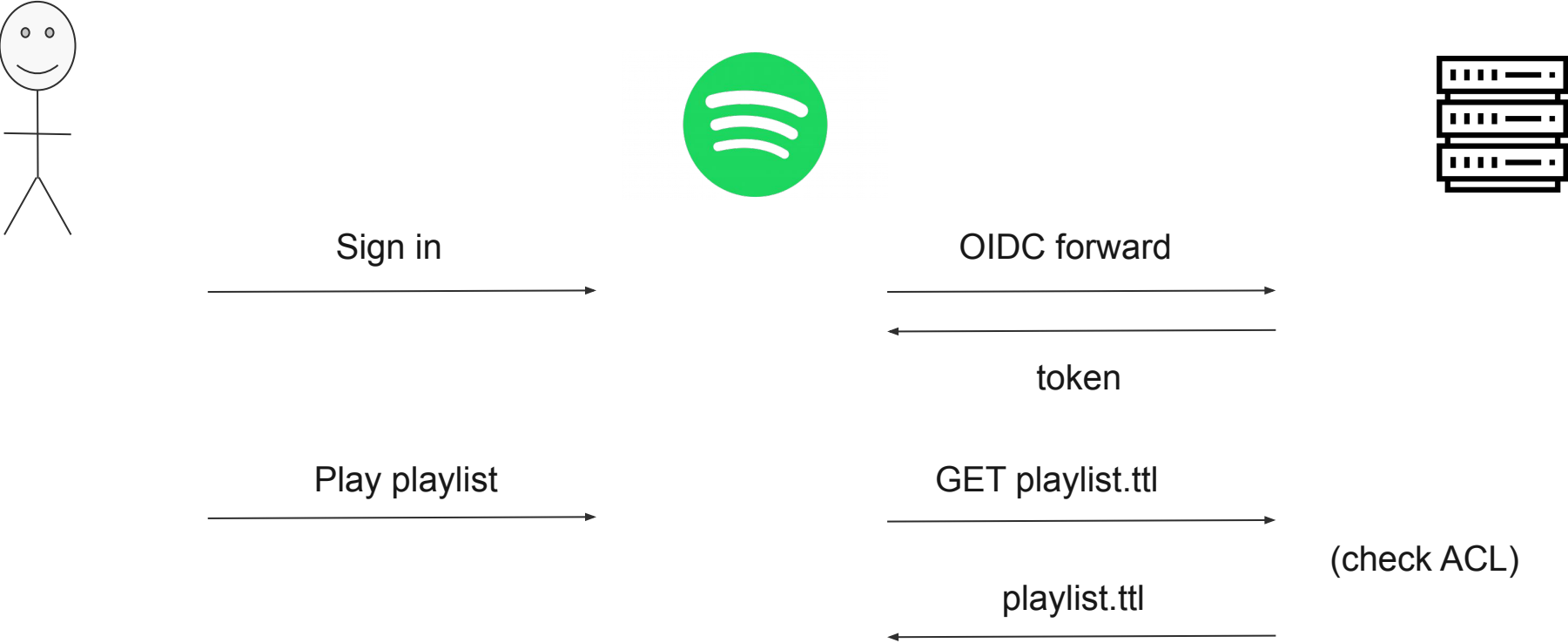


Source: <https://solidproject.org>



How does it work?

Core piece: Solid server, which hosts pods for users and acts as an SSO gateway.
Example (simplified):



Data format

```
@prefix : <#>.
@prefix sdo: <https://schema.org/>.
@prefix wd: <https://www.wikidata.org/wiki/>.
@prefix tr: <https://open.spotify.com/track/>.

:001
  a sdo:MusicPlaylist;
  sdo:description "For example purposes";
  sdo:name "A fine playlist";
  sdo:track
    [
      sdo:byArtist [ sdo:identifier wd:Q392; sdo:name "Bob Dylan" ];
      sdo:identifier tr:18GiV1BaXzPVYpp9rmOg0E, wd:Q89268524;
      sdo:inAlbum
        [
          sdo:identifier wd:Q11632;
          sdo:name "The Freewheelin' Bob Dylan"
        ];
      sdo:name "Blowin' in the Wind"
    ],
  [ sdo:identifier tr:7eYYxblNEZKKeTT0HBQbXO; sdo:name "Kozmic Blues" ].
```

```
:002
  a sdo:MusicPlaylist;
  sdo:description "For example purposes";
  sdo:name "Another playlist";
  sdo:track
    [ sdo:identifier tr:7ni78Vjslqo2VxiDOahYlV; sdo:name "The Revolution Will Not Be Televised" ].
```

- Data is stored in “Linked Data” Formats (e.g. rdf/xml, turtle, json-ld)
- Vocabularies define how data about a certain domain should be represented
- Usually stored



Solid being used in the real world

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Studentenattest wordt digitaal vanaf begin volgend jaar

Blijklussen als student? Dan heb je mogelijk een attest nodig om te bewijzen dat je nog studeert. Dat kan binnenkort helemaal digitaal. © Getty Images/Stockphoto

Web creator Tim Berners-Lee's startup Inrupt raises \$30 million

Manish Singh — 1:59 PM PST · December 9, 2021

DE TIJD Nieuws Beleggen LIVE Mijn Geld Sabato **ABONNEER NU** LOG IN KRANT HELPCENTER

Groen licht voor Vlaamse 'intelligente verkeerswisselaar van data'

De Vlaamse regering keurt het relanceproject 'Oprichting van het Vlaams Datanutsbedrijf' goed. Ook het project voor datakluisen werd goedgekeurd.



References

- S. Capadisli, T. Berners-Lee, R. Verborgh, K. Kjernsmo, J. Bingham, and D. Zagidulin. Solid protocol. W3C editor's draft, W3C, May 2024. URL <https://solidproject.org/TR/protocol>.
- Community Solid Server: <https://github.com/CommunitySolidServer/CommunitySolidServer>
- SolidBench: tool for playing around <https://solidbench.dev>
- List of applications supporting Solid: <https://solidproject.org/apps>

