

Better Solid Apps NLNet Application

By [Noel De Martin](#)

This document contains the same information I submitted in the [NLNet website](#) for the call of October 1st, 2024. It only has one additional section, [Timeline and other proposals](#), and it is more readable because I'm using hyperlinks rather than plain text.

Abstract

Can you explain the whole project and its expected outcome(s).

The Solid Protocol has been around for a while, but it's struggling to get traction within the general public. For a long time, there has been talk of a mythical Killer App that will arrive to take Solid into the mainstream. But I'm convinced that this application will never come. Instead, we need an ecosystem of apps working together to make people realize the true power of Solid.

I have been building Solid Apps for 5 years, and even though I care about UX and making them useful for everyone, my main focus has always been to scratch my own itch. I've also been doing all of this as a side-project, so my involvement in the Solid Community has been limited, and my progress has been slow.

My intention with this project is to work on these applications full-time, and start catering for needs other than my own. This will involve implementing long-awaited feature requests, improving the onboarding experience and presentation, and much more.

With this renewed focus, I hope to play a stronger part on stimulating the ecosystem, and bring Solid to everyone rather than only Solid enthusiasts.

Background

Have you been involved with projects or organisations relevant to this project before? And if so, can you tell us a bit about your contributions?

I have been making Solid Apps since 2019, you can learn more about my journey with Solid in a talk I gave at FOSDEM 2023: [From Zero to Hero with Solid](#).

All this time, I have been working a 4-day workweek in my day job, so everything I've done has been a side-project. Recently, I decided to move on from my job, and focus my efforts in Solid full-time. You can also find more about that in this blog post: [The End of The Chapter](#).

Here are some highlights of my contributions in the Solid community:

- I created a library implementing the Active Record design pattern: [Soukai](#).
- I released 3 apps
 - [Solid Focus](#) (a Task Manager, currently [rebuilding it from scratch](#))
 - [Media Kraken](#) (a Media Tracker)
 - [Umai](#) (a local-first Recipes Manager)
- I gave some talks:
 - [Media Kraken](#) (Solid World February 2021)
 - [From Zero to Hero with Solid](#) (FOSDEM 2023)
 - [Thoughts on Solid Developer Experience](#) (2nd Solid Symposium)
 - [Solid CRDTs in Practice](#) (2nd Solid Symposium)

Other than these, I've also been working in the open and you can find more content in my [blog](#), [journal](#), and [YouTube channel](#).

Costs and Sustainability

Requested Amount: 50.000€

Explain what the requested budget will be used for? Does the project have other funding sources, both past and present?

The main cost for this project will be my own labor, given that I intend to work on it full-time and I don't have any other sources of income. So far, all the work I've done related to this has been supported by my 4-day workweek, and I haven't asked for any financial contributions.

Besides that, I am able to do most of the work necessary to complete the project on my own; but I'd like to get some external help in areas I'm not an expert in. In particular, design and marketing. This won't be a huge part of the project, but there are many things besides the code that I believe are important for the success of the project (UX, landing pages, user research, etc.).

Beyond this initial period, my intention is to make it into a self-sustainable project that doesn't rely on grants. However, the way in which that will happen depends a lot on the market response. There are [countless ways to make Open-Source sustainable](#), but not all business models can work for all the projects. Personally, I'd prefer to keep everything as open as possible; but the feasibility of that remains to be seen.

It goes without saying, but of course everything that comes out of this initial period will be open source. If I need to resort to more restrictive approaches, it will be new premium features or paid apps.

Comparison to existing solutions

Compare your own project with existing or historical efforts.

If I have to be completely honest, it is difficult to write about this without sounding too narcissistic. I've been on the lookout for good Solid Apps ever since I learned about Solid, but thus far I've only adopted my own. Maybe I have been too idealistic, or I haven't looked hard enough, but the truth is that I haven't been able to find any app that I'm willing to use in my daily life.

To be clear, I mean apps trying to fulfill the goal of bringing Solid to the masses. There are some decent apps, like [Penny](#); but those are mostly targeted at developers. There have also been some attempts with mainstream entities, like [Inrupt's work with the BBC](#). But those have often [drifted from the Solid vision significantly](#) (or at least, what I interpret that to be).

If we look beyond the confines of Solid, though, there are some ecosystems worth mentioning:

- Text files and markdown: There are many applications for writing text that are perfectly interoperable, given the ubiquity of the format. One worth mentioning is Obsidian, which has recently become prominent whilst staying true to pure markdown.
- Email: Electronic correspondence is also an ecosystem where most applications are interoperable, and there are multiple email clients that anyone reading this will be familiar with (Thunderbird, Superhuman, K-9, etc.).
- RSS: We can also find a similar situation in the resurgence of RSS in the podcast ecosystem, with multiple players that are platform-agnostic (AntennaPod, Podcast Addict, etc.).
- ActivityPub: The Fediverse is probably the most similar to Solid, making use of RDF under the hood and exposing users to the idea of federation (email is also federated, but it isn't so obvious for most people). In there, we can also find applications that are interoperable and have a significant volume of users (Mastodon, Misskey, Pixelfed, etc.).

However, an ecosystem of interoperable apps for different domains still doesn't exist. As things stand right now, I believe Solid is the best thing we have towards that goal (as I explain in my blog post [Why Solid?](#)). But I recognize that this is evolving, and eventually a better solution may come up; or one that is more widely adopted. So I'm willing to switch the underlying protocol in the future.

The good news is that the engine to make all of this happen already exists, it's a library I created called [Soukai](#). In technical terms, it implements a design pattern called Active Record that translates JavaScript objects into database queries. One of the translation layers that I have implemented thus far translates these objects into HTTP requests against a Solid POD, but this could be adapted to store data against other backends such as remoteStorage, ActivityPods, NextGraph, or Atomic Data. All my apps have been built with Soukai.

Technical challenges

What are significant technical challenges you expect to solve during the project, if any?)

The specifics will highly depend on the direction I decide to take after some initial research, but here's some possibilities.

Thus far, my apps have only worked in the frontend with no server-side dependencies. This is a self-imposed restriction I decided on as an indie developer, but it may change in my pursuit of Solid with greater ambition. One example would be Media Kraken, a media tracking application. One of the most requested features since the beginning has been tracking TV shows, but one of the reasons why I haven't done that yet is that it would require some form of server-side processing to update the data and notify of new episodes. Given the nature of Solid, it could be challenging to implement this in a way that adhered to its spirit (remaining interoperable).

Something else that I've been asked in numerous occasions is to add social aspects in my apps. Following the example of Media Kraken, I have been asked to make it possible to follow other people's activity (which movie they have seen, whether they liked it or not, etc.). The challenge here is that I'm not convinced that Solid is the best solution for this feature. When it comes to social relationships, ActivityPub is already much better positioned in the ecosystem and many people already have an account. It would be nice if you could connect a Solid App with your fediverse account to take care of the social aspects. But this is something I still have to explore myself. I'm aware of ActivityPods, but I'm not sure it would work because it requires a specialized server (which defeats the purpose of using ActivityPub to begin with, because very few people have an ActivityPod account or even know it exists).

I would also like to explore the idea of cross-app interoperability, which would start showcasing the true power of Solid. For example, it would be nice if I could export a list of ingredients from my Recipes Manager app (Umai) and view it in my Tasks Manager app (Solid Focus). Ideally, in a way that not only works with my own apps, but any app using these data types.

Finally, I have to dramatically improve the onboarding experience. None of my apps have an appealing landing page yet (although I'm currently working on one in my Solid Focus rebuild). And I believe this will be critical to make these applications appealing to everyone.

Ultimately, the main challenge will be to understand the market and make applications that can pierce the bubble of the Solid enthusiast sphere. I would measure my success by the number of people using my apps to solve real use-cases, and not by people who are curious about Solid and just want to see a working app.

Marketing strategy

Describe the ecosystem of the project, and how you will engage with relevant actors and promote the outcomes?

I have been involved in the Solid community for a while; so I'm confident most people will notice my work. Whether it gets traction or not will depend on the quality of my solutions, and the willingness of the market to adopt the new paradigm.

In particular, I'm currently completely ignorant of how many people is actually using my apps, given that they live in the client side and I'm not doing any form of tracking. One of the first things I'd do is try to understand where they currently stand, both using privacy-respecting solutions like [Fathom Analytics](#), and actively asking the community.

Also, as I mentioned in the [Technical challenges](#) section, one area of improvement is the onboarding experience. This doesn't only include making better landing pages, but also improving the log in experience and assisting users to create a new account.

Up until this point, everything I released has been a byproduct of scratching my own itch. This new phase will certainly be a continuation of that, but I also intend to provide solutions beyond my own necessities. That also includes making an effort to spread the word and bring these ideas to new people.

I'm aware that the application market is saturated, but I believe there is an audience of people seeking better software (as in using better values). And they are under-served at the moment. This is demonstrated by how many people arrive at Solid enticed by its vision, but leave disappointed that there aren't many solutions that fulfill the promise beyond a proof of concept.

I'll also continue working in the open, and probably ratchet up my involvement in community events and conferences. I've also been thinking about some experimental channels of outreach, such as reaching out to universities interested in introducing their students to new technologies.

Timeline and other proposals

Please note that I intend to start working on this in January 2025, given that I'm currently on a sabbatical and thinking what to do after quitting my job.

You'll notice that I've also submitted 2 other proposals: one for an app framework (Aerogel), and one for a Proxy Solid Server. I'll only be able to work on one project, but I wanted to submit all 3 ideas because I'm interested to hear what you think.

The app framework is the proposal I'm more excited about, but if you think it's too risky, I'm willing to explore the other two. I'm also open to merging multiple proposals into one if it seems feasible.