

Annexe I: Project plan *Solid Data Modules*

The Solid Project enables a "Bring your own Data" architecture, but this is only useful if apps understand the data they find on the pod. So the client-client specs are the crucial but underdeveloped core part of the Solid project that needs urgent attention now.

Even though most Solid apps are still demo apps, we already see data in the user's pod being stored in multiple different and incompatible ways. That's why we will develop a number of "polyglot" JavaScript modules, one per data type.

Apart from making data accessible, reliably updating index files, and preventing data corruption, the Solid Data Modules will also automatically show the app developer which fine-grained Data Grants their app needs, to finally stop the bad practice of demo apps that request root access to your pod.

We are adding extensive unit tests as well as end-to-end tests to each of the data modules we publish.

M1. Bookmarks module

We will produce the vanilla version of the Solid data module for bookmarks. This milestone includes the learning curve of team member Reza Soltani who spent the first few weeks in the project getting to understand Solid app development and getting ready to write a data module. See <https://github.com/solid-contrib/data-modules#paradigms-covered> for an explanation of "vanilla version". See #6 for more details about this milestone.

Milestone(s)

- Publish module + documentation

Amount

€ 6000

M2. Addressbook module core

Core functionality for rdflib contacts module (address books and contacts).

Milestone(s)

- Publish module + documentation

Amount

€ 2000

M3. Addressbook module groups

Add group management

Milestone(s)

- Publish new version of module + documentation

Amount

€ 2000

M4. Addressbook module completion

Type index support, optional features and work in developer feedback

Milestone(s)

- Publish complete module + documentation

Amount

€ 2000

M5. Chat module

A module for reading and writing chat messages, compatible with both SolidOS LongChat and Liquid Chat.

Milestone(s)

- Publish module + documentation

Amount

€ 4000

M6. Maps module

A module for dealing with maps, location, and other geographical information. This milestone includes only the vanilla version of this module.

See <https://github.com/solid-contrib/data-modules/issues/8>.

Milestone(s)

- Publish module + documentation

Amount

€ 2000

P1. Modules for Soukai-Solid

All modules also available for for the Soukai-Solid paradigm

Milestone(s)

- Publish Soukai-Solid compatible modules + documentation

Amount

€ 3000

P2. Modules for rdflib.js

All modules also available for for the rdflib.js paradigm (or at least create foundation for rdflib modules other than contacts)

Milestone(s)

- Publish module(s) + documentation

Amount

€ 3000

P3. Modules for LDO

All modules also available for for the LDO paradigm

Milestone(s)

- Publish module(s) + documentation

Amount

€ 3000

F1. Code generation

A tool for generating new (partial) Solid data modules, using automated code generation, starting from a shape definition.

Milestone(s)

- Release of code generation tool

Amount

€ 3000

F2. Solid backend for remoteStorage.js

The remoteStorage.js library currently supports three backends for personal data storage: accounts at (possibly self-hosted) remoteStorage servers, Dropbox accounts, and Google Drive accounts. We want to add Solid pods as a fourth backend to this library. This will involve some work on the login widget, triggering the authentication flow, and accessing the pod for create/read/update/delete of files.

Milestone(s)

- Process accessibility feedback
- Solid backend for remotestorage.js

Amount

€ 4000

F3. LDO improvements

Various improvements to Linked Data Objects library.

Milestone(s)

- Add feature to @ldo/solid to suggest new URIs based on the type index. This must be documented on ldo.js.org and published to NPM.
- Add feature to @ldo/solid to iterate through everything of a certain type in the type index. This must be documented on ldo.js.org and published to NPM.
- Add hook(s) for type-index support in @ldo/solid-react. This must be documented on ldo.js.org and published to NPM.
- Add a new command to @ldo/cli to generate an NPM project that can be published to NPM. This command must be documented on ldo.js.org and published to NPM.
- Add support for common ShEx use cases (Or Type, And Type, Different Cardinalities on identical field in different shapes). This task will require a refactor of the @ldo/type-traverser, @ldo/schema-converter-shex, but it will allow for many more kinds of ShEx shapes to be parsed.
- Add support for Webhooks in @ldo/solid
- New release of LDO with the above

Amount

€ 3000

E1. solidcommunity.net NSS->CSS migration

To help app developers make use of our modules, it is useful if our test server, solidcommunity.net, is updated to the latest code and we make sure the server is running reliably again, without memory leaks and restarts.

Milestone(s)

- Provision test infrastructure (data migration and writing the scripts and config for Pivot)

Amount

€ 1000

E2. Solid Chat - Slack/... Bridge

A bridge that adds the API of Slack (and/or of a FOSS alternative) as a data format in the chat data module, and can move data between a Slack chat channel and a Solid chat channel, and vice versa. This is an extension to the chat data module that shows how it can be used in practice to achieve real-time liquid data between different schemas for the same type of data.

Milestone(s)

- Publish bridge module

Amount

€ 3000

E3. Solid library for Java-Android

The Inrupt Solid library for Java has some dependencies that are not available. In this milestone we will deliver a version of it that works with Android, and contribute this work upstream.

Milestone(s)

- Publish variant of Solid Library working with Android

Amount

€ 1000

E4. Solid hello-world application for Android

Android app with a simple login and selecting the storage

Milestone(s)

- Release version of app

Amount

€ 1000

E5. Solid Data modules in Java

The app from E4 to expose APIs as a service to other Android apps on the same device.

Milestone(s)

- Release new version of app

Amount

€ 1000

E6. Conventions archive

Survey apps from the Solid ecosystem and beyond for what data is persisted to the personal data store; document schemas and sample data.

Milestone(s)

- Publish archive

Amount

€ 2000

E7. Landscape summary

Reach out to developers to discover roadblocks to interoperability, document findings in a public text.

Milestone(s)

- Interop document

Amount

€ 2000

E8. Case study

Publish a working software demonstration of how interoperability could function between multiple schemas or personal data stores.

Milestone(s)

- Publish demo

Amount

€ 2000