

Solid Data Modules

Using Solid as a Platform for Data Portability

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APP DEVS
SOLVE
PROBLEMS

DATA DESIGN
IS PART OF
APP DESIGN

RIGHT?

“Single-app” Solid

=

RWW

Your webserver
machine read/writable
and linkable to others

HTML & RDF

“data browsers”

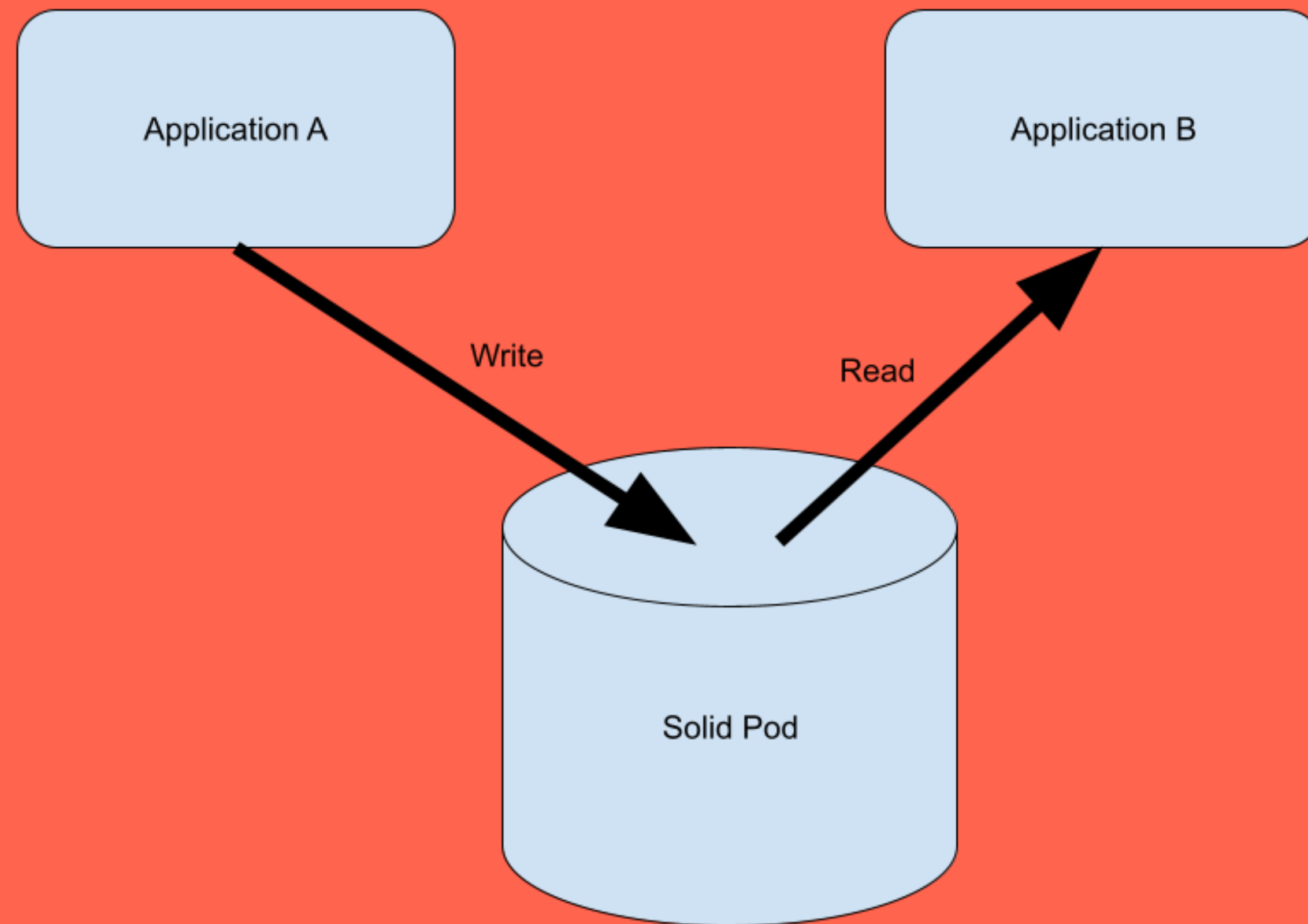
form generators

“Multi-app” Solid

=

Data pivot

THE POD **AS A** DATA PIVOT



Interop + exit

=

Data Portability

MY SOLID ROADMAP

AUTH AGENT

BRIDGES

APPS

Indexer

Pivot

DATA SYNC

SERVERS

DATA MODULES

TEST SUITES

CLIENT-CLIENT

SPEC

SPECS

Server Behaviour

DATA CONVENTIONS

Access Control

Document Translate Reusable Code

shaperepo.com

ShapeRepo

Find shapes

Make your apps interoperable

Browse a library of data shapes to help you stucture your data so that other apps can understand it.

Learn How

Find shapes

217 Schemas

long chat

<https://shaperepo.com/schemas/longChat>

solid profile

<https://shaperepo.com/schemas/solidProfile>

PONDER

SOURCE

long chat

<https://shaperepo.com/schemas/longChat>

Table View ShexC View ShexJ View

ChatShape

Allows Extra Properties: type

Each Of:

Property	Type
type	http://www.w3.org/ns/pim/meeting#LongChat
author	iri
Date Created	Date-Time
Title	String
participation	@https://shaperepo.com/schemas/longChat#ChatParticipationShape
Shared Preferences	iri

ChatParticipationShape

Each Of:

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1.1 Terminology

1.2 Namespaces

1.3 Conformance

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3 Chat Message

4 Threads and Replies

5 Deleted and Modified Messages

6 Actions

7 Access Control

8 Preferences

9 Discovery

10 Considerations

10.1 Security Considerations

10.2 Privacy Considerations

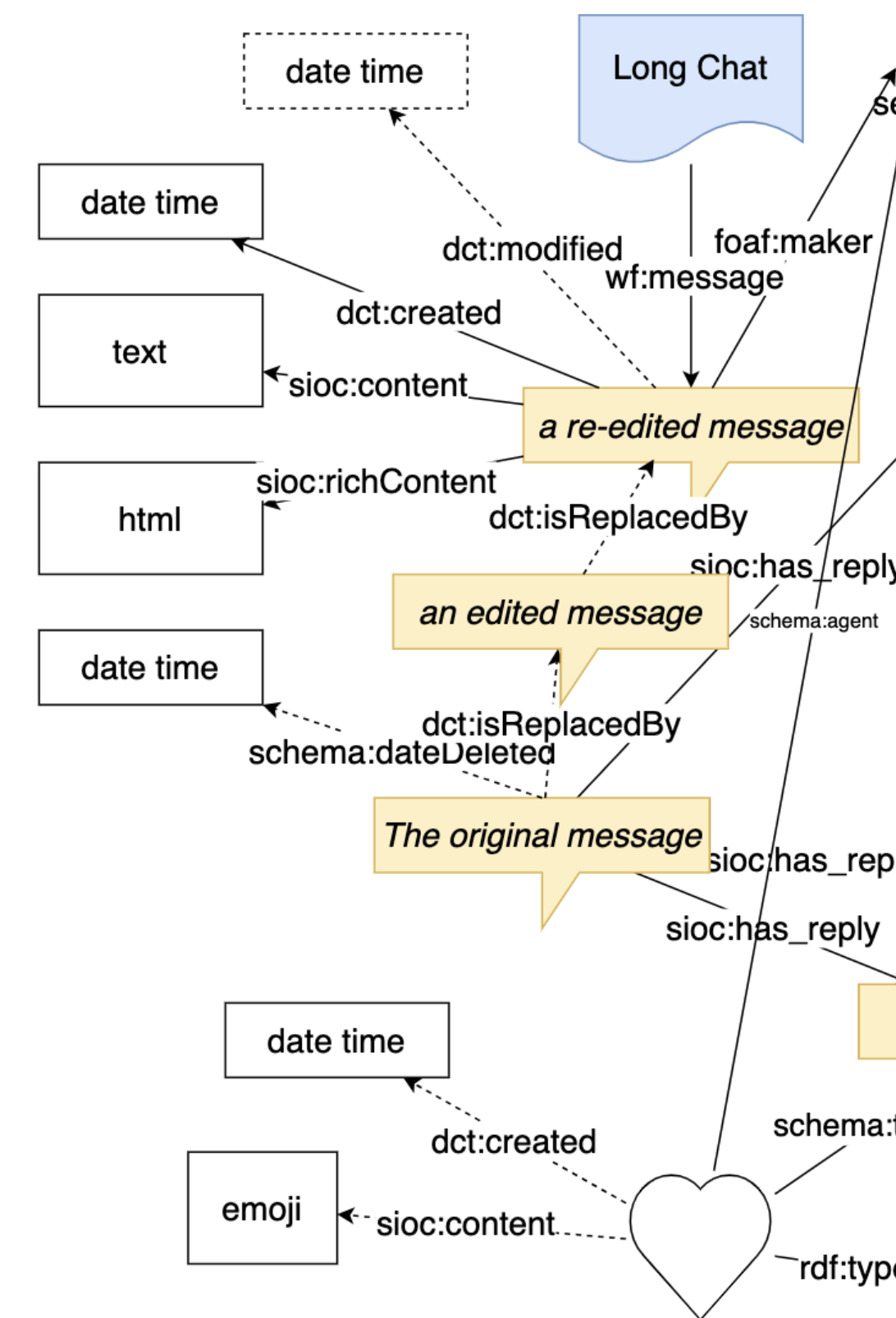
10.3 Internationalization Considerations

10.4 Accessibility Considerations

References

Normative References

Informative References



A simple Long Chat instance


A SIMPLE LONG CHAT INSTANCE

```
# in $ROOT/index.ttl
```

```
@prefix : <#>.
```

```
@prefix dc: <http://purl.
```

```
@prefix meeting: <http://
```

Awesome Solid

Conventions

—

Addressbook

Bookmark

Chat

Finance

Food

Images

Meeting

Movies

Notepad

Overview

Profile

To add a message in the LongChat conversation instance, `/long-chat/2019/04/17/chat.ttl` following triples to `/long-chat/2019/04/17/`

```
</long-chat/2019/04/17/chat.ttl#Msg1555>  
</long-chat/2019/04/17/chat.ttl#Msg1555>  
</long-chat/2019/04/17/chat.ttl#Msg1555>  
</long-chat/index.ttl#this>
```

Note that there is no need to make `/long-chat/index.ttl`, since it can be discovered by `chat/`, `/long-chat/2019/`, `/long-chat/2019/`

Also note that here too, for the chat conversation whereas for the individual chat messages

One-to-One Chat

One-to-One chat on top of Solid is used to send messages and it stores messages on the pod of the sender.

A note about existing implementations

SOLID DATA MODULES

A SOLID BOOKMARK

```
@prefix bk: <http://www.w3.org/2002/01/bookmark#> .
```

```
<https://ME.example.org/animals.ttl#Animals>
```

```
  a bk:Topic .
```

```
<https://YOU.example.org/birds.ttl#Birds>
```

```
  a bk:topic ;
```

```
  bk:subTopicOf <https://ME.example.org/animals.ttl#Animals> .
```

A SOLID BOOKMARK

```
@prefix boo: <http://www.w3.org/2002/01/bookmark#>.
```

```
@prefix crdt: <https://vocab.noeldemartin.com/crdt/>.
```

```
bookm:b93d9944-d54d-42f6-a39b-6ea3f9217763
```

```
  a boo:Bookmark;
```

```
  rdfs:label "sdf";
```

```
  boo:hasTopic "sdfg";o
```

```
  boo:id "b93d9944-d54d-42f6-a39b-6ea3f9217763";
```

```
  boo:recalls <http://example.com>.
```

```
bookm:b93d9944-d54d-42f6-a39b-6ea3f9217763-metadata
```

A SOLID BOOKMARK

```
{  
  "url": "https://www.google.com",  
  "title": "Google",  
  "description": "alfa",  
  "tags": [  
    "bravo"  
  ],  
  "createdAt": "2023-11-30T15:02:09.711Z",  
  "updatedAt": "2023-11-30T15:08:29.561Z",  
  "id": "a9308a39c5294b0b9269d0c650d8c5f1",  
  "@context": "http://remotestorage.io/spec/modules/bookmarks/archive-bookmark"  
}
```


A SOLID BOOKMARK

```
{  
  "JBXDocumentURL": "https://alsarahthenubatones.bandcamp.com/album/silt",  
  "JBXDocumentName": "Alsarah & the Nubatones: Silt",  
  "JBXDocumentNotes": "",  
  "JBXDocumentTags": [  
    "#listen"  
  ],  
  "JBXDocumentCreationDate": "2023-11-30T15:26:46.811Z",  
  "JBXDocumentModificationDate": "2023-11-30T15:26:46.811Z",  
  "JBXDocumentID": "01HGGDDWGV1A9KFYMNWKFY63ZP",  
  "JBXDocumentEmbedURL": "https://bandcamp.com/EmbeddedPlayer/v=2/album=704487352",  
  "JBXDocumentImageURL": "https://f4.bcbits.com/img/a3732065656_5.jpg",  
  "JBXDocumentDidFetch": true  
}
```

A SOLID BOOKMARK

```
@prefix terms: <http://purl.org/dc/terms/>.
```

```
@prefix bookm: <http://www.w3.org/2002/01/bookmark#>.
```

```
@prefix XML: <http://www.w3.org/2001/XMLSchema#>.
```

```
<> terms:references <#0.716493818605209.ttl>.
```

```
<#0.716493818605209.ttl>
```

```
  a bookm:Bookmark;
```

```
  terms:created "2023-12-13T10:11:12.842Z"^^XML:dateTime;
```

```
  terms:title "alfa";
```

SOLID BOOKMARK MODULE

```
/**
 * Maps the title from a Solid dataset Thing.
 *
 * @param thing – The Thing to map
 * @returns The title as a string
 * @internal
 */
private static mapTitle(thing: ThingPersisted): string {
    return (
        getLiteral(thing, DCTERMS.title)?.value ??
        getLiteral(thing, RDFS.label)?.value ??
        getLiteral(thing, AS.name)?.value ??
        ""
    );
}
```


Solid Data Modules As The Engine Of Solid App Interop

Pod Indexer As The Engine Of Data Discovery

Shape Trees As The Engine Of Data Discovery

Shape Trees As The Engine Of Data Grants

Solid Data Modules

+ Indexer +

SAI

**GITHUB.COM/
SOLID-CONTRIB/
DATA-MODULES**