The CILogon Stores

OA4MP supports QDL access to stores as per https://oa4mp.org/pdf/qdl_oa4mp_store_access.pdf. This module is an extension of that and provides access to the CILogon user as well as two factor stores. All of the information and access patterns for OA4MP are the same, this document shows the addition of two more stores and how to access them.

Supported stores

In addition to the standard stores, CILogon has access to

- user

- two_factor

Loading the module

The module that include OA4MP stores is loaded as

```
users := j_load('cilogon.store')
```

and as per OA4MP, the module is named for what it is initialized as. Here, to initialize it for access to the user store,

```
    users#init('/var/local/cilogon_service/oa4mp-server/conf/oa4mp-server.xml',
            'cil-oa2',
            $$STORE_TYPE.'user');
true
```

and a typical call is

```
    users#count();
8423
```

A typical access is to read using the user_uid attribute of the record (the default) which returns a stem:

```
    users#read('http://cilogon.org/serverT/users/214063')
{
 last_accessed:1740684916582,
 last_modified_ts:1740662782000,
 create_time:1587801823000,
 idp_display_name:GitHub,
 serial_string:http://cilogon.org/serverT/users/214063,
 attr_json:{"preferred_username":"hsymeonis"},
 last_name: Symeonis,
 display_name:Henry Symeonis,
 oidc:4495337,
 idp:http://github.com/login/oauth/authorize,
 affiliation:staff@ncsa.illinois.edu;member@ncsa.illinois.edu,
 state: { dn_state:7 },
```

```
 us_idp:true,
 first_name: Henryy,
 email:symeonis@townies.oxford.uk,
 user_uid:http://cilogon.org/serverT/users/214063
}
```

The values returned are dependent on the user, so this may vary widely. Generally though there must be a user_uid.

The Two factor store

Thw two factor store is similar, but has only an opaque filed named "two_factor" that holds whatever the IDP has deemed necessary for the user.

```
   two_factor := j_load('cilogon.store');
   two_factor#init(
           '/var/local/cilogon_service/oa4mp-server/conf/oa4mp-server.xml',
           'cil-oa2',
           $$STORE_TYPE.'two_factor');
true
   two_factor#read('http://cilogon.org/serverT/users/101782');
{
  two_factor : rgDCR-Z-cz9mJcia2EgCVkZABsTUpVdAEqdskov8877WnORqZB
               Wg4j4YozFkR8VdslVXsB4zJZs4LNYqJwupzJ67P2zlNesXyeJF-
               nLLZrZOwhPUVH5N-L3QERHpzXLuL73BziUiojNlt8YV-
               fv0xQMtoaNRFSTRvVleHlKqgZGCzvGbtZUnBP6kHfOHaNo4qRGS
               EaZAOFeUwquo6X4eBt0GMRhFwhGvCAu4icZQh5mqq
               bkwlpsuGu58t9kJRAi
     user_uid : http://cilogon.org/serverT/users/101782
}
```