

Two factor authentication (2FA)



Soffid 3 documentation

You can find the Soffid 3 documentation following the next link: <https://bookstack.soffid.com/books/two-factor-authentication-2fa-VsJ>

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Installation

To install LinOPT service, please follow the next steps.

Install docker

The docker service is required to run the LinOPT service

```
sudo apt-get install docker.io
```

Install portainer

Portainer is an optional UI to manager the docker service easily.

- More information: <https://www.portainer.io/>
- Installation: <https://www.portainer.io/installation/>

Install mariadb

The LinOTP service only works with mariadb, you could use the mariadb container or another existing mariadb database in your environment.

- Dpockerhub: https://hub.docker.com/_/mariadb

Configure the external service

Create linotp database

It is required to create the linotp database.

```
// Enter to the mariadb container shell
mysql -u root -p;
create database linotp;
use linotp;
```

Create table usertable

After the installation of MariaDB and the creation of the database, it is required to create this table to allow Soffid to manage users.

```
CREATE TABLE `usertable` (  
  `id` varchar(50) DEFAULT NULL,  
  `user` varchar(50) DEFAULT NULL,  
  `telephoneNumber` varchar(50) DEFAULT NULL,  
  `mobile` varchar(50) DEFAULT NULL,  
  `mail` varchar(50) DEFAULT NULL,  
  `sn` varchar(50) DEFAULT NULL,  
  `givenName` varchar(50) DEFAULT NULL,  
  `password` varchar(60) DEFAULT NULL  
) ENGINE=InnoDB DEFAULT CHARSET=latin1;
```

Add a user/pass and grants

The user/pass will be used when the linotp container will be created.

```
create user linotp identified by 'YOUR_PASSWORD';  
grant all on *.* to linotp;
```

Create LinOTP container

Create the soffid/linotp container: <https://hub.docker.com/r/soffid/linotp>

- Publish the port 443 of the container to 1443

To access the LinOTP web console: <https://localhost:1443/manage>

- The user is **admin** and the password is the one configured previously as the environment attribute **ADMIN_PASSWORD**

Create SQL Resolver

In the LinOTP web console go to: Configuration LinOTP > UserIdResolvers > New (button) > SQL (type)

Now use the attributes below:

SQL Resolver ✕

Server Configuration

Resolver name:

Driver:

Server:

Port:

Database:

User:

Password:

If security relevant information is changed, for example the URL, the password has to be provided to avoid unprivileged exposure of the password.

Database table:

Limit:

Database encoding:

Additional connection parameters:

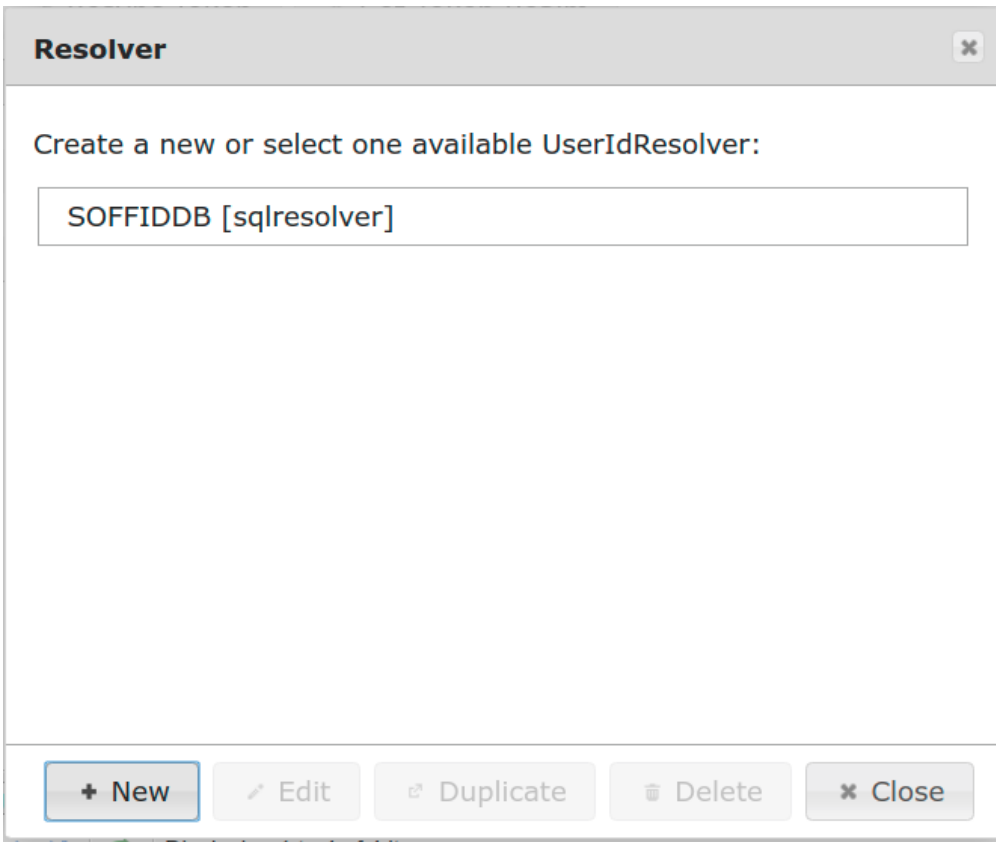
Mapping Attributes

Attribute mapping:

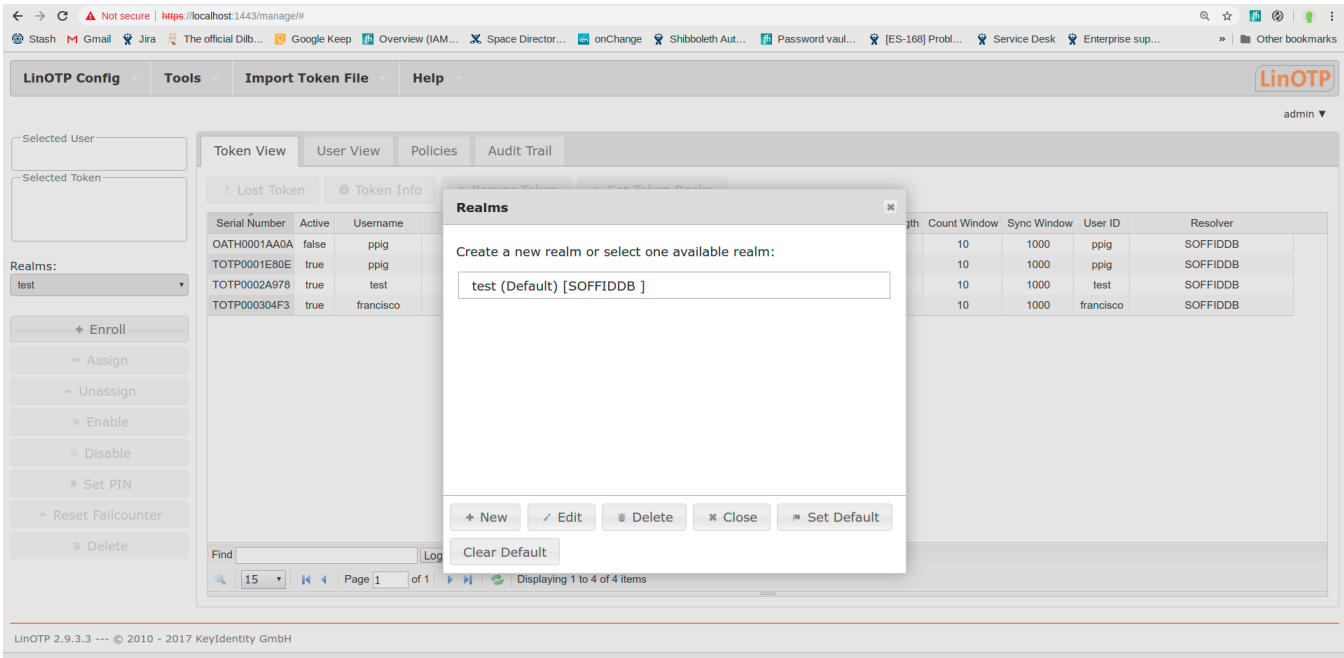
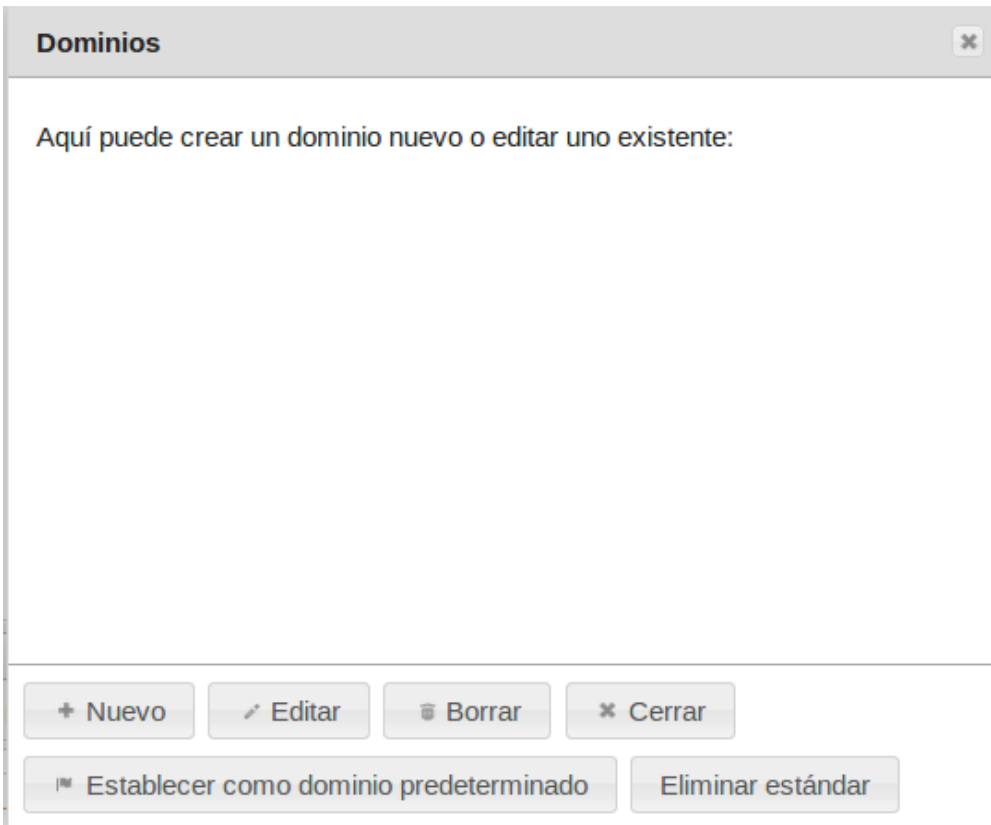
Where statement:

This is the attribute mapping:

```
{ "userid": "id", "username": "user", "phone": "telephoneNumber", "mobile": "mobile", "email": "mail", "surname": "sn", "givenname": "givenName", "password": "password" }
```



Create a Realm



Soffid configuration

Mapping to the agent to manage LinOTP users

Finally to allow to manage user accounts with LinOTP it is required to create a rest agent with the next mapping against the LinOTP service.

The mapping: [agent-configuration-linotp.xml](#)

Enable the service in Soffid

After the installation and configuration of the service you should include in the Soffid configuration

Please follow the steps of this link [Authentication methods#EnableLinOTPintegration](#) and then the next section [Authentication methods#SecondFactorAuthenticationconfiguration](#).