

SPB meeting
June 28, 2023

New ETRepo web application and future plans

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UNIVERSITÀ DI PISA

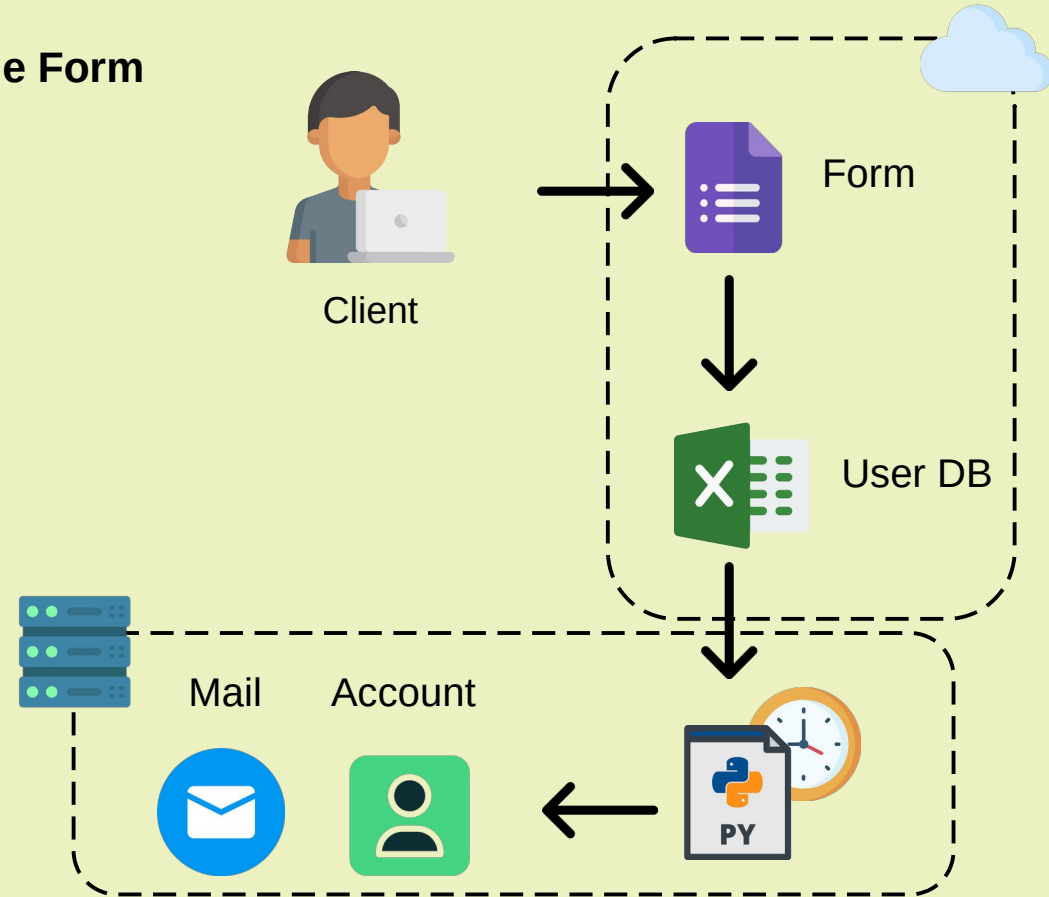


Istituto Nazionale di Fisica Nucleare

- **Dedicated to storage and quicklook analysis of sites data**
- Hosted on Green Data Center @ University of Pisa since 2019
- Virtual machine with the following specs:
 - 16 CPU cores Intel Xeon 5120 (28 thread/core)
 - 5 Tb hard disk
 - 32 Gb RAM
 - Centos7 OS
- See A. Fiori et al. @ SPB Workshop, ET Symposium 2023
(https://indico.ego-gw.it/event/562/contributions/5215/attachments/2788/4908/afiori_spbw.pdf)

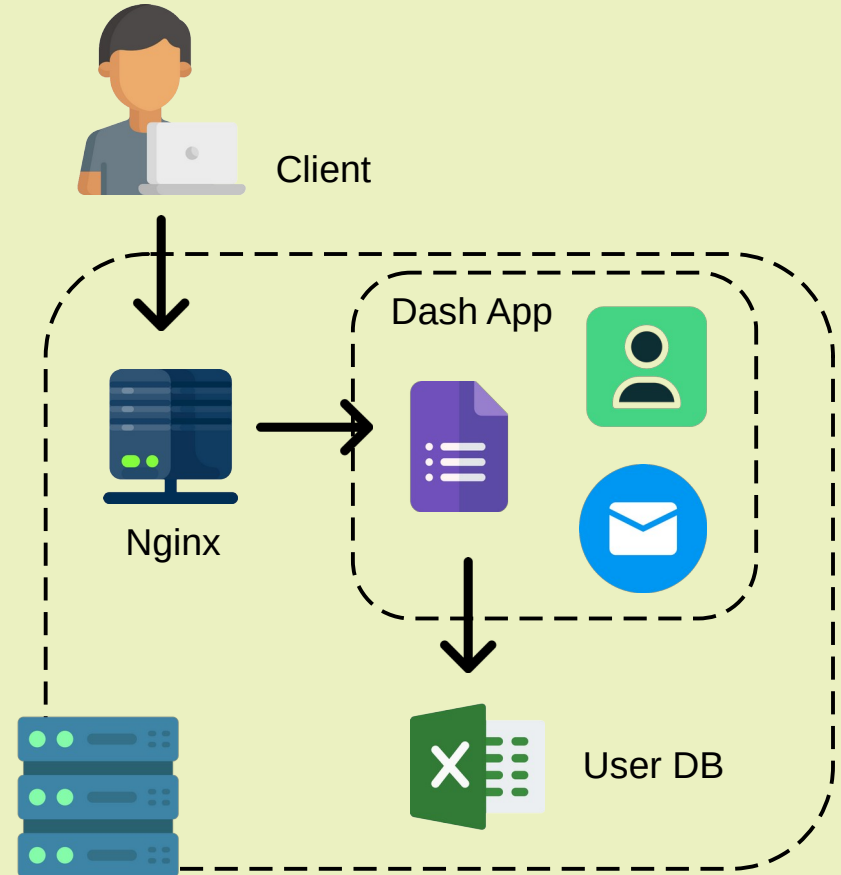
Current user management

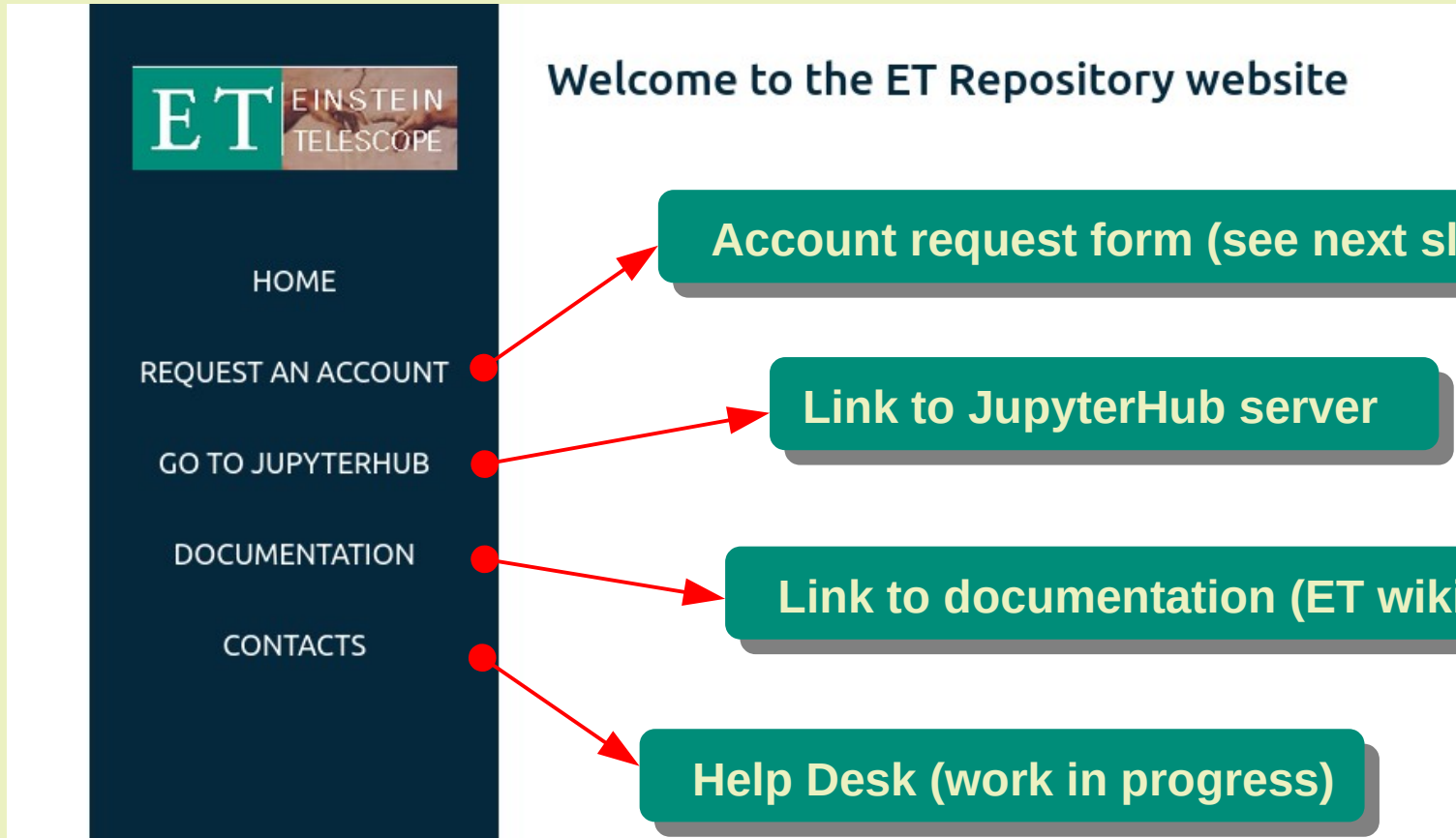
- Requests for new account on ETRepo via **Google Form** (<https://forms.gle/n2MpK1cg2Mxfdz1o8>)
- Profile info stored in private XLS file
- Scheduled python script periodically reads XLS file and creates new users
- **Issues:**
 - User management service detached from online form
 - **No feedback about service status** to users and maintainers
 - Manually restarted after notice from users



Unified solution: Flask app

- **Python Flask web app** that includes multiple tools:
 - **HTML request form** based on Plotly Dash (<https://dash.plotly.com/>)
 - **Email SMTP client** with python smtplib, enabled both TCP and TLS connection
 - Linux **user management** system
- Config.py file allows for deployment customization
- Exposed to the web via **Nginx proxy server** with enabled TLS connection
- Currently available at <https://etrepo.df.unipi.it:8010> in DEBUG mode (user creation disabled)



A screenshot of the ET Repository website home page. The page has a dark blue header with the ET logo and navigation links. The main content area is white and contains a welcome message and four callout boxes. Red arrows point from the navigation links to the callout boxes.

ET EINSTEIN TELESCOPE

HOME

REQUEST AN ACCOUNT

GO TO JUPYTERHUB

DOCUMENTATION

CONTACTS

Welcome to the ET Repository website

Account request form (see next slide)

Link to JupyterHub server

Link to documentation (ET wiki)

Help Desk (work in progress)

Preview: account request (1)

ET Repository account request

This form is for requesting an account on the ET site repository and on the ET github repository (<https://github.com/et-sw>). Once you have filled the form, your account will be created and you will receive your credentials via email.

First Name

Last Name

Institution

Email

GitHub account (optional)

Added one confirmation step to prevent creating users with wrong email

Q: Do we still need the GitHub option?

Subject [ETRepo] Email confirmation request

Dear John Doe,

You have requested an account on the ETRepo machine. Please use the code below to confirm your email address:

5765

If you haven't submitted an account request, please report this mail to us.

This is an automated mail sent from an outbound-only server. Please do not reply.
Contact the ETRepo Help Desk if you need assistance.

Preview: account request (2)

The screenshot shows the 'ET Repository account request' form. A modal window titled 'Verify your email' is open, displaying a 4-digit code '5765' and a 'Confirm' button. A red arrow points from the 'Confirm' button to the email content on the right. The background form includes fields for 'First Name' (John), 'GitHub username', and a 'Submit' button.

```
Subject [ETRepo] Your login credentials

Dear John Doe,

Your user on the machine etrepo.df.unipi.it has been created. Here
are your credentials:

Username: jdoe
Password: ztQv4yvp

You can log into the machine with the following command:

$ ssh jdoe@etrepo.df.unipi.it

Please change your password at your first login using the passwd
command.

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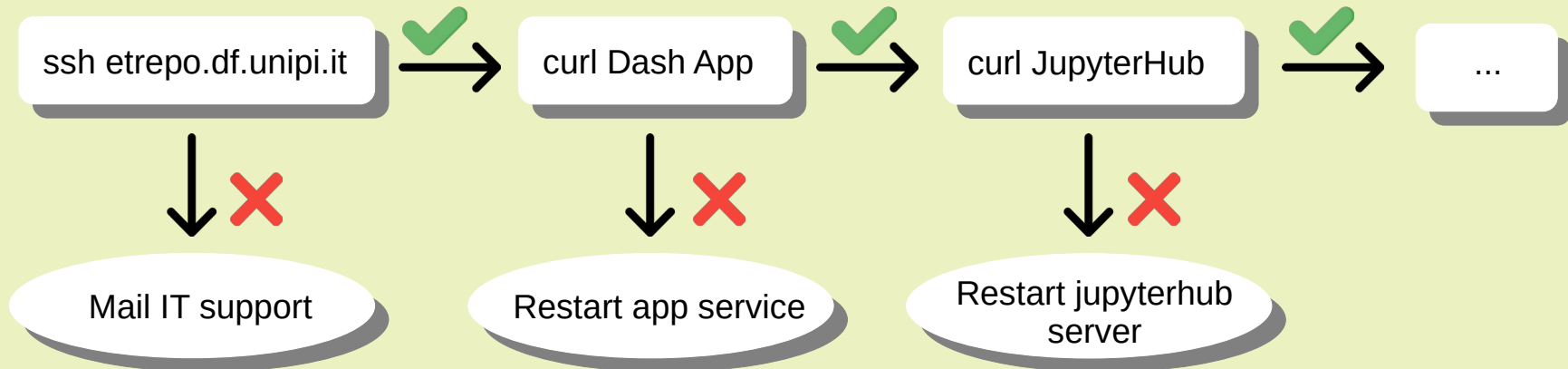
This is an automated mail sent from an outbound-only server. Please
do not reply.
Contact the ETRepo Help Desk if you need assistance.
```

After confirmation,
the user and its work dir are created

Note: currently disabled (DEBUG mode)

To do: diagnostic pipeline

- **Multiple server shortages** reported during the last few months
- **Multi-stage diagnostic pipeline** required to automatically keep up services
- Possibly implemented via GitLab CI/CD using a dedicated GitLab runner
- Work in progress...



- **Python conda environments**
 - Pre-installed with analysis packages
 - Usable via terminal (i.e. bypassing JupyterHub)
- **FDSN data server @ ETRepo**
 - Proposed for sharing Sardinia data
 - Meeting scheduled next week to discuss this activity
- Different utilities, info and link to resources can be added to the ETRepo App
- Production deployment will be up soon