



Usability study for the new account portal.

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Introduction

In the process of improving the new account portal provided by the IT-CDA-IC team, a usability study was launched at the end of 2020.

For the purpose of that study, a series of tasks was handed over to 10 CERN employees who consequently contributed to the project with their feedback regarding their experience with the application.

In the following slides, we shall present the tools used for the study along with the material which we were able to gather upon completion and finally the actions taken.

Project Setup

In order to organize a remote usage observation, allowing the users to complete the requested actions on the portal in their desired timeframe, the tool **loop11** was used.

Through this tool, we constructed the scenarios through which the users would be able to exploit the application as much as possible.

To initiate the test, each subject was required to grant access to their screen, microphone and camera, since verbal input was also taken into account besides written comments throughout the tasks.

Loop11: Project format.

1 Choose Project Format

Done

Type ?

Choose Moderated if you wish to watch & interact with the participant as they progress through the project.

Un-Mc

Project Title Internal use only, not seen by participants

Final V - Usability Tests for Users portal Application

Language

English

For this project screen recording

is required for all participants

For this project webcam/face recording

is required for all participants

For this project audio recording

is required for all participants

Loop11: Defining the tasks.

Final V - Usability Tests for Users por ... Preview

1 Choose Project Format

2 **Tasks & Questions** Done

A project is a collection of tasks and questions.
For example, a task might be: "Find the page on our website that has our contact details."
A good question might be: "How would you rate the ease of finding what you need on this website?"
You can find more information [here on creating good task scenarios](#).

Participant Introduction

Task Step 2.1
Type: Standard
Change your CERN password.

Question Q Step 2.1
Multiple Choice (1 answer)
Are the password requirements clear? If not, please speak out loudly why, before you click on "NEXT" below.

Task Step 2.2

Loop11: Users' videos.

The screenshot shows a browser window with the URL <https://www.fyreagency.com>. The website header includes 'FYRE AGENCY' and navigation links: HOME, ABOUT, CLIENTS, EXPERTISE, BLOG, CONTACT. A green task overlay is present with the following text: '0% Complete', 'Please see if you can find information on the types of companies and industry sectors the Fyre Agency has worked with.', 'Exit', 'Hide', 'Move', 'Abandon Task', and 'Task Complete'. The main content area features a large heading 'Tom designs, today' and a sub-heading 'How to keep up and make design decisions quickly'. Below this, there is a paragraph of text starting with 'There is a lot of talk in recent times about slowing down. Slow food, slow living and slow travel... Even slow money. And while there is merit in giving...'. A video player interface is visible at the bottom of the browser window, showing a play button and a progress bar.



Notes

AzDbMb...

A note is timestamped based on the participant's time within the study. Notes can be edited, deleted and reviewed within reports. Within reports video clips can be generated and shared based on a note. Notes can only be seen by the moderator and notetakers.

Daniel Loewus-Deitch



User video example used from Loop11 tutorial for CERN users' privacy purposes.

Loop11: Participants overview.

Draft

Final V - Usability Tests for Users portal Application

UNMODERATED Created: 30 Nov 2020 Modified: 19 Feb 2021

73% Task Success 14% Task Fail 12% Task Abandon 10/20 Participants

Edit project More

Last 5 participants	Browser / OS / Device	Date/Time	Success	Fail	Abandon	Duration
Participant 27 Villefranche-sur-Saone, Auvergne-Rhone-Alpes, France		07:21 PM UTC 04 Dec 2020	68%	18%	12%	18:17
Participant 26 Zurich, Zurich, Switzerland		10:58 AM UTC 04 Dec 2020	0%	0%	100%	-
Participant 25 Zurich, Zurich, Switzerland		10:34 PM UTC 03 Dec 2020	0%	0%	100%	-
Participant 24 Zurich, Zurich, Switzerland		10:33 PM UTC 03 Dec 2020	0%	0%	100%	-
Participant 23 Zurich, Zurich, Switzerland		10:33 PM UTC 03 Dec 2020	0%	0%	100%	-

^

Loop11: Result report.

Total tasks & questions

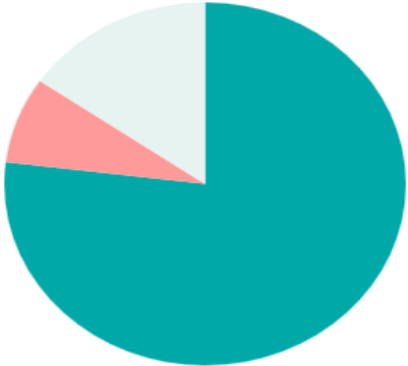
Success	Fail	Abandon	SUS	NPS	Lostness	Avg duration
62%	24%	13%	58	15	0.38	02:52

Task 1: Gift to animal fund



● Success (69%) ● Fail (23%) ● Abandon (8%)

Task 2: Recurring gift



● Success (77%) ● Fail (8%) ● Abandon (15%)

Result report example used from Loop11 tutorial.

Loop11: Lostness.

$$L = \sqrt{\left(\frac{N}{S} - 1\right)^2 + \left(\frac{R}{N} - 1\right)^2}$$

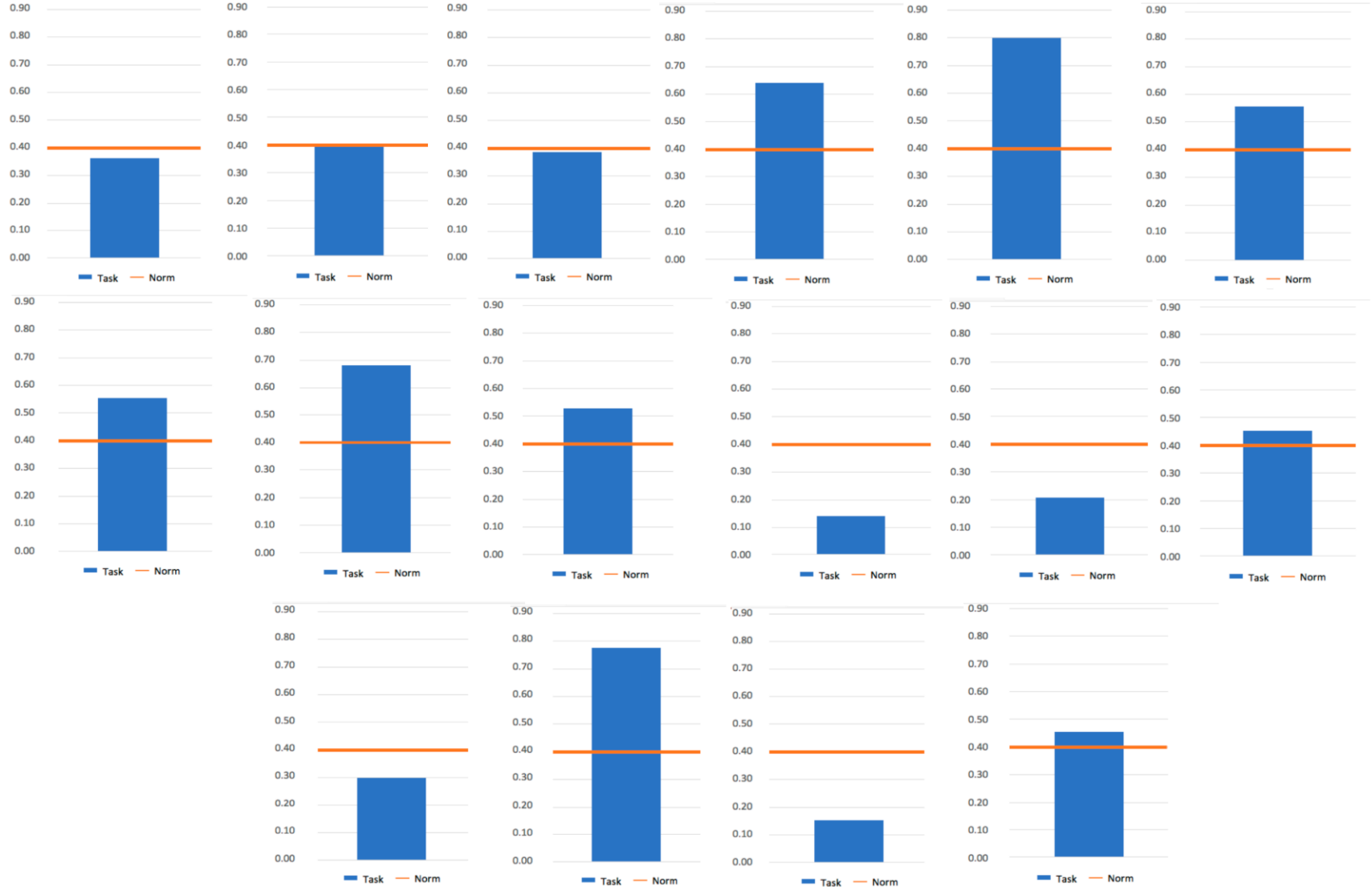
The lostness rate calculation, allows the calculation of the lostness in each task per person. Lostness rate is calculated manually or with a spreadsheet using the formula above.

Where:

- R is the minimum number of pages (pop-up windows or visible changes on the page included) that must be visited for the task.
- S is the total number of visited pages (pop-up windows or visible changes on the page included).
- N is the number of different pages visited (pop-up windows or visible changes on the page included).

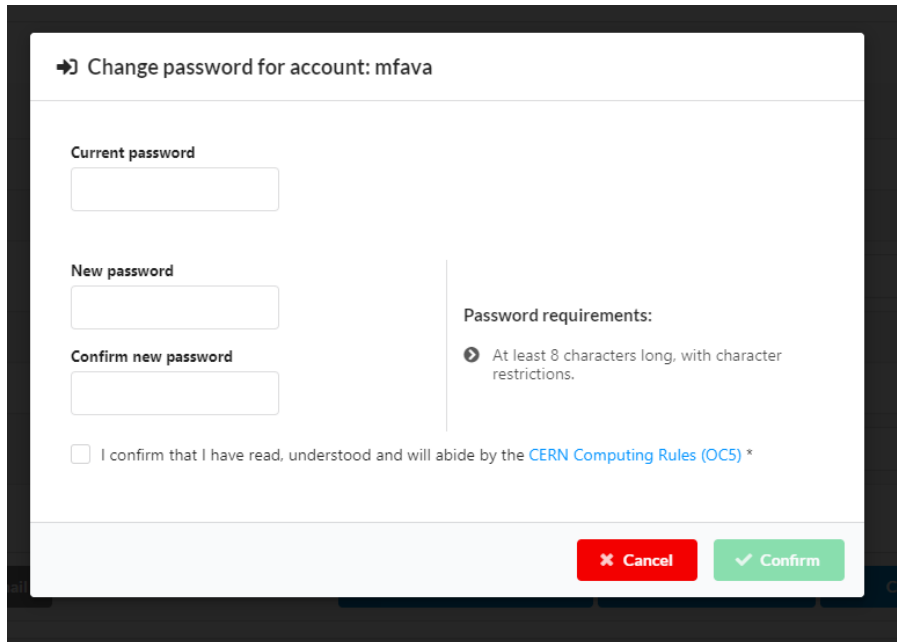
L varies from 0 to 1 where 0 corresponds to zero losses and 1 to user being fully lost. For the purpose of these tests, we assigned 1 to the tasks where the users failed to complete the task. For a value of L above 0.4 it is recommended to make changes to the website.

Loop11: Lostness Results Overview.



Tasks and Usability based alterations

Task: Change your CERN Password.



→ Change password for account: mfava

Current password

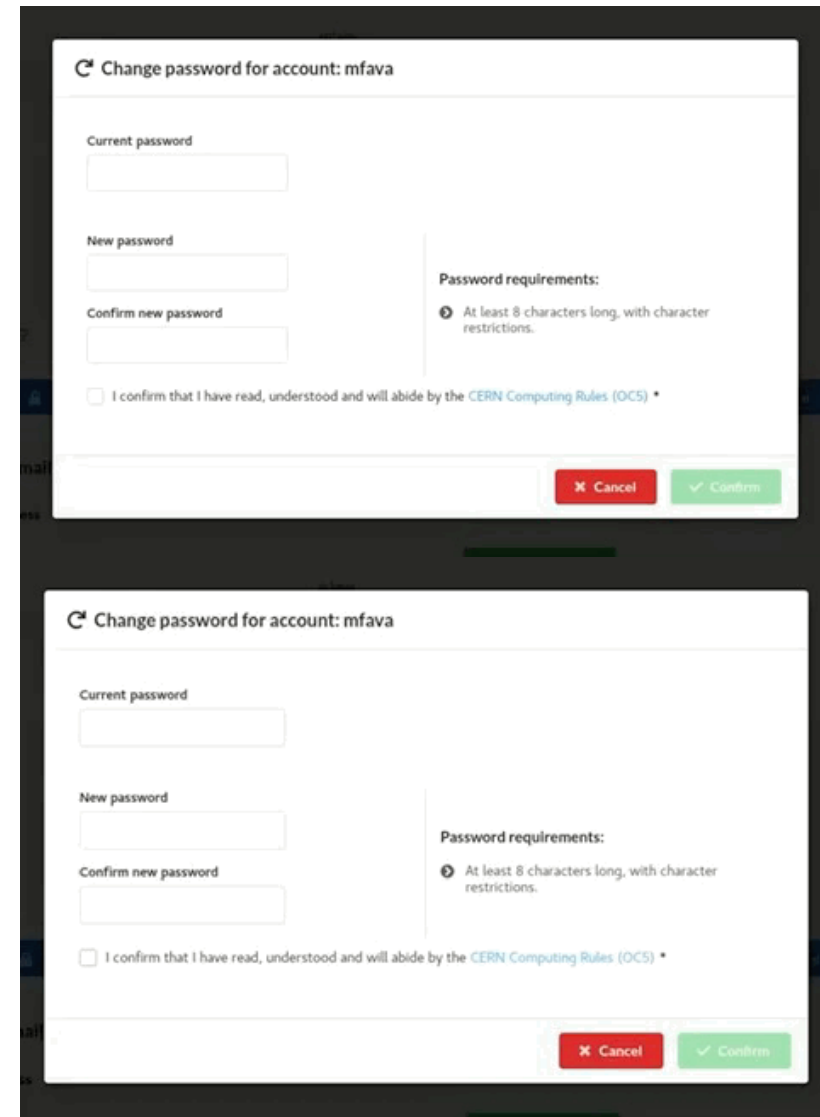
New password

Confirm new password

Password requirements:

- At least 8 characters long, with character restrictions.

I confirm that I have read, understood and will abide by the [CERN Computing Rules \(OCS\)](#) *



↻ Change password for account: mfava

Current password

New password

Confirm new password

Password requirements:

- At least 8 characters long, with character restrictions.

I confirm that I have read, understood and will abide by the [CERN Computing Rules \(OCS\)](#) *

↻ Change password for account: mfava

Current password

New password

Confirm new password


Password requirements:

- At least 8 characters long, with character restrictions.

I confirm that I have read, understood and will abide by the [CERN Computing Rules \(OCS\)](#) *

Task: Configure multifactor authentication.

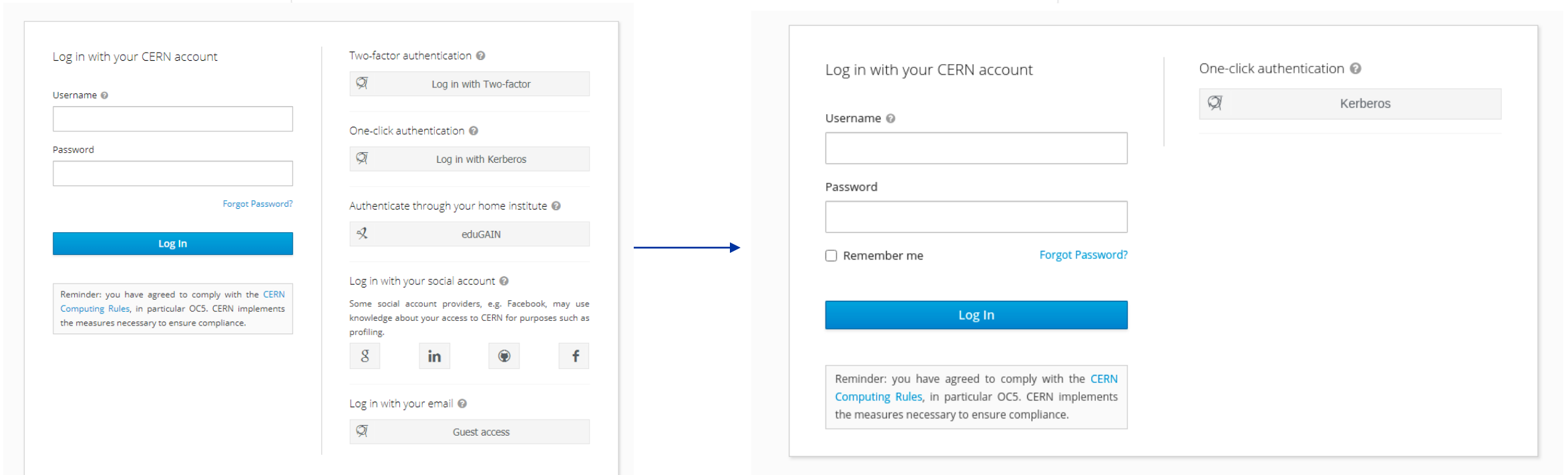
Second Factor Authentication



Second Factor Required

For security reasons you can only modify your Second Factor settings if you are authenticated with a Second Factor token. All CERN Users with a smart phone are able to authenticate using a Second Factor, you just need to download and register a One-time-password (OTP) application, see the [Documentation](#) for suggestions. Log out now and authenticate again, choosing the **Log in with Two-factor** option.

[Logout](#)



Task: Switch to using an external email instead of your CERN email.


Use an external email address:

Your existing CERN mailbox will be deleted!

Before proceeding, you might want to backup your email messages.

If you are a CERN Member of the Personnel, please take note of the serious implications on data privacy and on CERN's privileges and immunities as an intergovernmental organization before switching to an external address.

[CERN Bulletin article: Don't let your mail leak.](#)

 favamar92@outlook.com


I confirm that I want my CERN mailbox to be deleted.

✕ Cancel

✓ Confirm

Use an external email address:

By choosing to proceed with this step, you are switching to using the external email address below as your primary email address. Your CERN mailbox will be deleted and mails sent to the old email address will be delivered to your external one. Before proceeding, please consider backing up the email messages from your CERN mailbox.

 favamar92@outlook.com

If you are a CERN Member of the Personnel, please take note of the serious implications on data privacy and on CERN's privileges and immunities as an intergovernmental organization before switching to an external address.

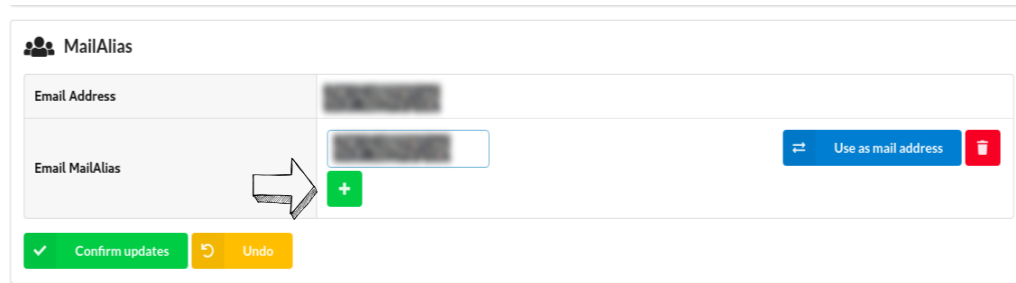
[CERN Bulletin article: Don't let your mail leak.](#)

I confirm that I want my CERN mailbox to be deleted.

✕ Cancel

✓ Confirm

Task: Set up an email Alias.



MailAlias

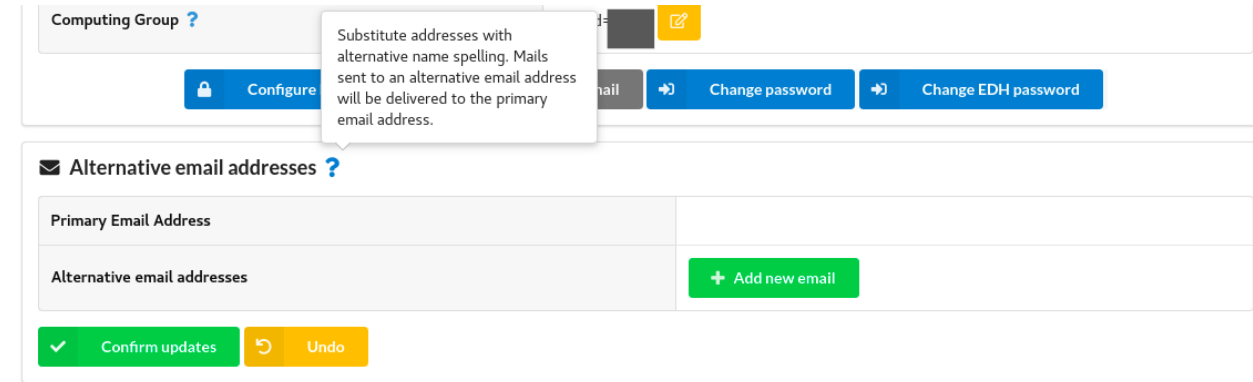
Email Address

Email MailAlias

Use as mail address

Confirm updates Undo

Detailed description: This screenshot shows the 'MailAlias' configuration page. At the top, there's a header 'MailAlias' with a user icon. Below it, there are two input fields for 'Email Address' and 'Email MailAlias'. A blue button labeled 'Use as mail address' is positioned to the right of the second field. At the bottom, there are two buttons: a green 'Confirm updates' and a yellow 'Undo'.



Computing Group ?

Configure

Change password Change EDH password

Alternative email addresses ?

Primary Email Address

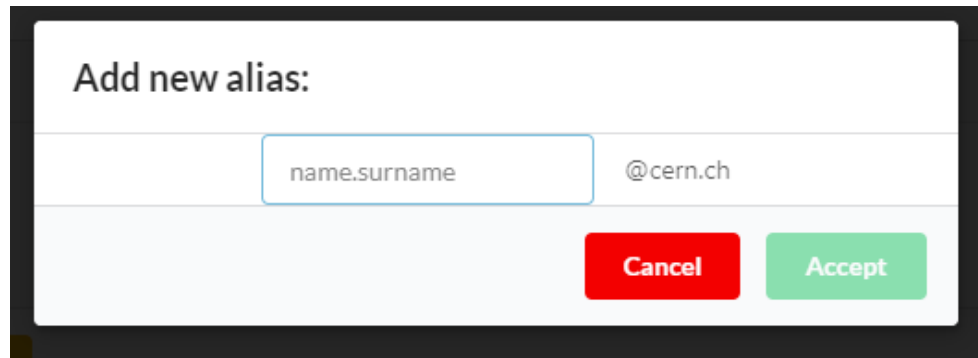
Alternative email addresses

Add new email

Confirm updates Undo

Substitute addresses with alternative name spelling. Mails sent to an alternative email address will be delivered to the primary email address.

Detailed description: This screenshot shows the 'Alternative email addresses' configuration page. At the top, there's a header 'Computing Group ?' with a 'Configure' button. Below it, there are two buttons: 'Change password' and 'Change EDH password'. The main section is titled 'Alternative email addresses ?' and contains a 'Primary Email Address' field and an 'Alternative email addresses' section with an 'Add new email' button. At the bottom, there are 'Confirm updates' and 'Undo' buttons. A tooltip is visible over the 'Add new email' button, containing the text: 'Substitute addresses with alternative name spelling. Mails sent to an alternative email address will be delivered to the primary email address.'

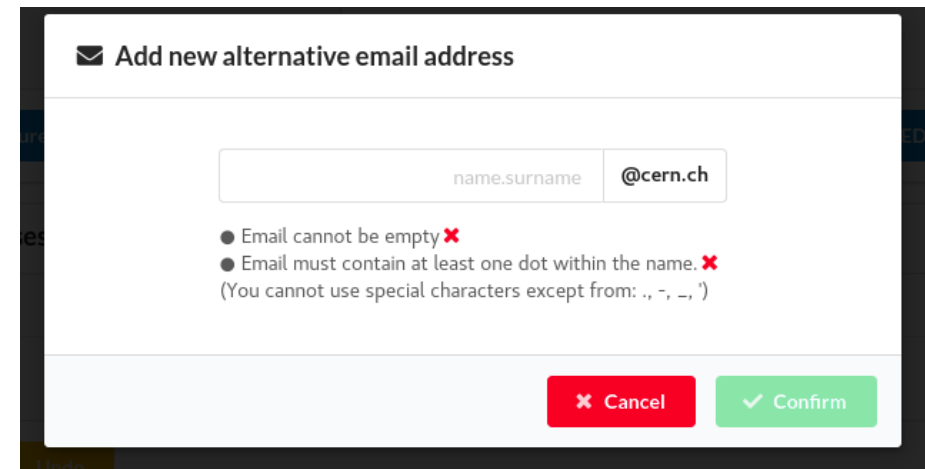


Add new alias:

name.surname @cern.ch

Cancel Accept

Detailed description: This is a dialog box titled 'Add new alias:'. It has a text input field containing 'name.surname' and a dropdown menu showing '@cern.ch'. At the bottom, there are two buttons: a red 'Cancel' and a green 'Accept'.



Add new alternative email address

name.surname @cern.ch

- Email cannot be empty ✖
- Email must contain at least one dot within the name. ✖
(You cannot use special characters except from: ., -, _, ')

Cancel Confirm

Detailed description: This is a dialog box titled 'Add new alternative email address'. It has a text input field containing 'name.surname' and a dropdown menu showing '@cern.ch'. Below the input fields, there are two error messages: 'Email cannot be empty ✖' and 'Email must contain at least one dot within the name. ✖ (You cannot use special characters except from: ., -, _, ')'. At the bottom, there are two buttons: a red 'Cancel' and a green 'Confirm'.

Task: Create a new Service login.

Create a new Login

Login *
The account login (3-15 chars, letters and numbers only), e.g. "service1account"

Display name *
A friendly name for the account (must contain a space), e.g. "Service1 Account"

Description *
Brief description of the purpose of the account

Email *
Main mail address of the account (must contain a dot), e.g. service.1@cern.ch



Create a new Login

Login *
This login is already in use

Display name *

Description *

Email *

Task: View the groups in which you are a member.

My Groups

Identifier	Display Name	Description
[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]

My Groups: 99

Input search text

Groups identifier: **begins with** equals contains Limit: 100

Name	Identifier	Description
[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]
bike-2-work	bike-2-work	Mailing list for the CERN bike to work competition
[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]

< 1 2 3 4 5 ... 10 > 10 / page

Task: Create a static or dynamic group.

[Create new static group](#) [Create new dynamic group](#)

Create new static group

* Group identifier:

* Group display name:

* Description:

Administrator group: None

Resource category: Test Official Personal

Expiration date:

Self-subscription policy: Closed Open CERN Users

Privacy policy: Group administrators Open Members

Approval required?:



Create new static group

* Group identifier:

* Group display name:
The Group display name is already taken!

* Description:

Administrator group: None

Resource category: Test Official Personal

Expiration date:

Self-subscription policy: Closed Open CERN Users

Privacy policy: Group administrators Open Members

Approval required?:

Conclusion

Overall, the participants showed positive response towards their experience while performing the given tasks.

The majority of them faced similar difficulties and a strong need for further explanations and guidance was observed.

By adding tooltips, further input guidance, direct navigation paths etc, we aimed to improve the user experience and we are continuously refining the design and functionality of the application in order to accommodate its users.

References

1. Loop11 tool: <https://www.loop11.com>
2. Lostness guide: <https://artplusmarketing.com/the-complete-guide-to-measuring-lostness-c890cc71fe05>
3. Users portal demo application: <https://demo-users-portal.web.cern.ch>

Thank you!



home.cern