



EU Login and Two-Factors Authentication (2FA)

User Guide for External Users

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1. EU LOGIN

EU Login is the European Commission's user authentication service. It provides users with a unique point to access EC services and applications.

EU Login is a robust and widely used. It currently supports more than 100 thousand internal users and 5 million external users, handling more than 4 million daily authentications. It is used by more than one thousand Commission systems, has an availability of 99.99% and an average response time of 0.2 seconds

2. CREDENTIAL THEFT AND TWO-FACTORS AUTHENTICATION (2FA)

Credential theft is a type of cyberattack that involves the hacker stealing a victim's password and, when successful, allows him to have the same account privileges as the victim and be able to access the same sensitive information.

Credential theft has been on the rise in recent years. More than 80% of hacks are the result of credential theft. This number could go up due to the increase in remote work and the number of scams surrounding COVID-19.

Enabling Two-factor authentication (2FA) is one of the most effective measures to combat credential theft. It requires a second piece of information beyond username and password. This can be a knowledge factor (something the user knows e.g. a PIN), a possession factor (something the user has e.g. a security token, a mobile device or smartphone app) or a biometric factor (e.g. fingerprints, facial and voice recognition).

By providing a second layer of authentication, 2FA increases the security of data to a much greater extend. If, for instance, a password is compromised, it offers another layer of protection to block unauthorized access.

The European Commission has set the use of 2FA, particularly EU Login 2FA, **mandatory** for its IT systems handling Sensitive Non-Classified (SNC) information and **strongly recommended** for its IT systems handling 'Publically available' and 'Commission use' information.

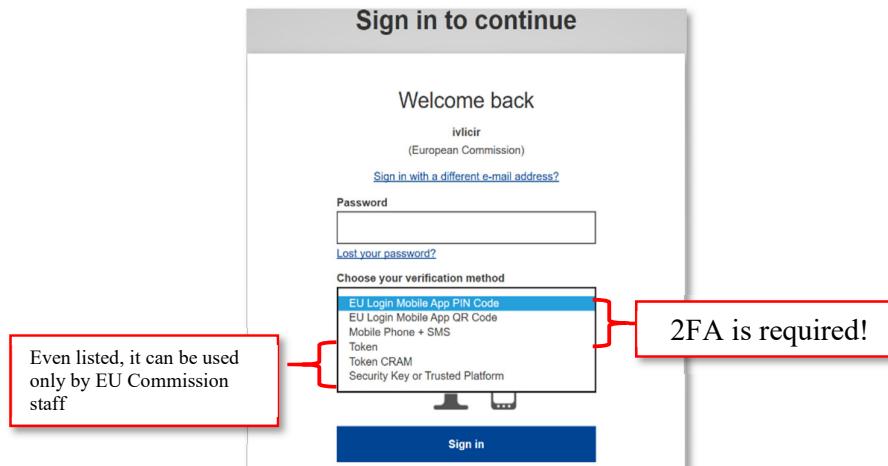
3. HOW TO SIGN IN TO “EU LOGIN” USING 2FA

In this section we will list briefly the different types of 2FA methods used by EU login. More detailed steps can be found in the EU Login User Guide via the following link: https://webgate.ec.europa.eu/cas/manuals/EU_Login_Tutorial.pdf



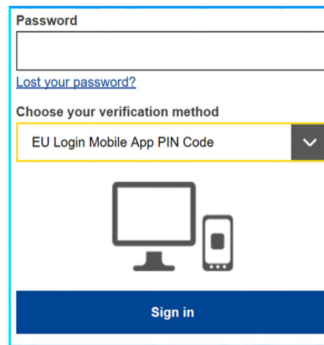
There are currently three verification method of 2FA available to non-Commission staff to sign in to “EU Login”:

1. [EU Login Mobile App PIN Code](#)
2. [EU Login Mobile App QR Code](#)
3. [Mobile Phone + SMS](#)



3.1 EU Login Mobile App – PIN code (recommended):

User installs an App on his/her smartphone and the authentication will be done through the App via a pin code:



The screenshot shows a login interface. At the top, there is a "Password" field with a "Lost your password?" link below it. Underneath is a "Choose your verification method" dropdown menu, which is currently set to "EU Login Mobile App PIN Code". Below the dropdown, there are icons for a desktop monitor and a smartphone. At the bottom, there is a blue "Sign in" button.

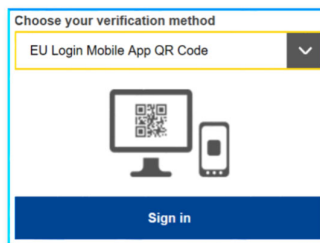
Prerequisite: User has already added his/her mobile under [“My Account”](#). If not yet done, the steps are described in details in [Annex A](#).

Steps to be performed:

1. User selects "EU Login Mobile App PIN Code" as the verification method, enter his password in the "Password" field and click on "Sign in".
2. If user has more than one device with an initialized EU Login Mobile App, he is asked to select the one he would like to use.
3. User clicks on the device using the name he provided.
4. EU Login sends a notification to user's mobile device.
5. Tapping on the notification triggers the launch of the EU Login Mobile App.
6. The EU Login App prompts user to enter his PIN code.
7. User enters his PIN code and tap on "Authenticate".
8. This automatically completes the process on user's PC.
9. That proceeds to the service user requested to use.

3.2 EU Login Mobile App – QR code:

User installs an App on his/her smartphone and use their camera to authenticate via QR code.



The screenshot shows a login interface. At the top, there is a "Choose your verification method" dropdown menu, which is currently set to "EU Login Mobile App QR Code". Below the dropdown, there are icons for a desktop monitor and a smartphone. At the bottom, there is a blue "Sign in" button.


Prerequisite: User has already added his/her mobile under [“My Account”](#). If not yet done, the steps are described in details in [Annex A](#).

Steps to be performed:

1. User selects "EU Login Mobile App QR Code" as the verification method.
2. User enters his/her password in the "Password" field and clicks on "Sign in".
3. A QR code is displayed on screen.
4. User starts the EU Login Mobile App on a mobile device where it has been previously initialized.
5. User taps on "Scan QR Code".
6. The QR code scanner starts on user's mobile device.
7. User points the camera of his/her mobile phone to a PC screen until the QR code is recognized.
8. The EU Login Mobile App displays a one-time password composed of digits and characters.
9. User types the one-time password in the "code generated by your app" field and click "Sign in" to proceed to the service he/she requested to use.

3.3 Mobile phone + SMS:

Authentication is done via an SMS received by the user on his/her mobile phone.



Choose your verification method

Mobile Phone + SMS

Mobile phone

International format including country code, e.g. for Belgium: +32 123 45 67 89

Sign in

Prerequisite: Valid phone number should be registered via EU Login -> [My Account details](#). If not yet done, the steps are described in details in [Annex B](#).

Steps to be performed:

1. User selects "Mobile Phone + SMS" as the verification method.
2. User enters his/her password in the "Password" field and enters a previously registered mobile phone number in the "Mobile phone" field, starting with a plus sign and with the country code, excluding dots, parenthesis or hyphens .
3. When clicking "Sign in", an SMS is sent to user's mobile device. The SMS contains a challenge code made of nine characters separated with hyphens (minus sign).
4. User types the challenge he/she received in the "SMS text challenge" fields and clicks on "Sign in" to proceed to the service requested to us.

4 HINTS & USEFUL LINKS

4.1 HINTS

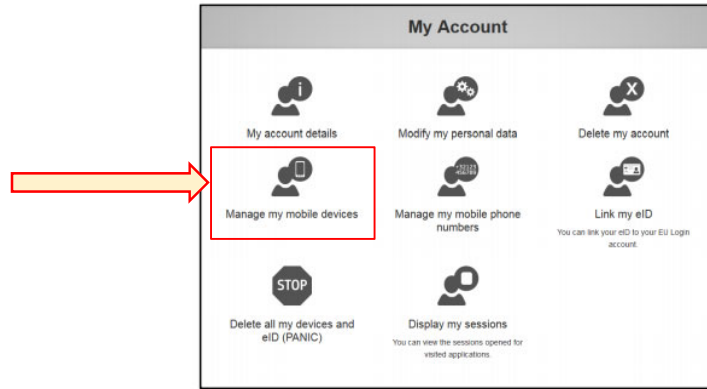
- If the user considers using SMS as a method of authentication, he/she should expect to receive the SMS on the same phone number registered in EU Login-> My account.
- In case **immediate support on EU LOGIN is required**, the user can send an email to the following mailbox: EU-LOGIN-EXTERNAL-SUPPORT@ec.europa.eu
- If the user needs help or to check the frequently asked questions, the [Help hyperlink](#) is available at the bottom of the EU Login page.
If EU Login access is successful but access to a given system is denied, the user has to contact support of the particular system and request the access rights.

4.2 USEFUL LINKS

- ❖ URL link to EU Login User Guide How to (un)install EU Login app on user's mobile device:
https://myintracomm.ec.europa.eu/corp/digit/itsupport/Documents/userguides/mdm.ecas-mobile-app_en.pdf
- ❖ URL link to EU Login User Guide:
https://webgate.ec.europa.eu/cas/manuals/EU_Login_Tutorial.pdf

ANNEX A: INSTALL AND INITIALIZE THE EU LOGIN MOBILE APP

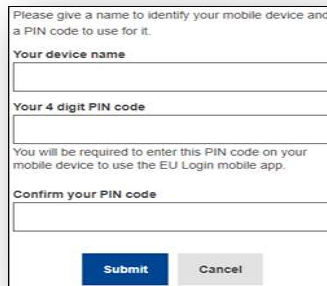
1. User should register mobile device via EU Login-> [My Account](#).



2. User clicks 'Add a mobile device'



3. User gives the device a name and enters a 4 digit pin for linking the device to his/her EU Login account



The screenshot shows a form with the following fields and instructions:

- Please give a name to identify your mobile device and a PIN code to use for it.
- Your device name
- Your 4 digit PIN code
- You will be required to enter this PIN code on your mobile device to use the EU Login mobile app.
- Confirm your PIN code
- Submit
- Cancel

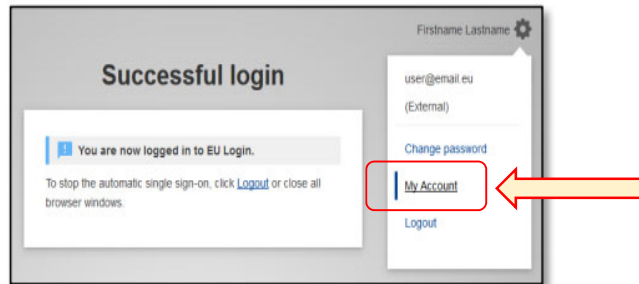
4. User scans the QR code with the EU Login mobile app that he/she needs to install on a smartphone or tablet ([Android](#) or [IOS](#)).



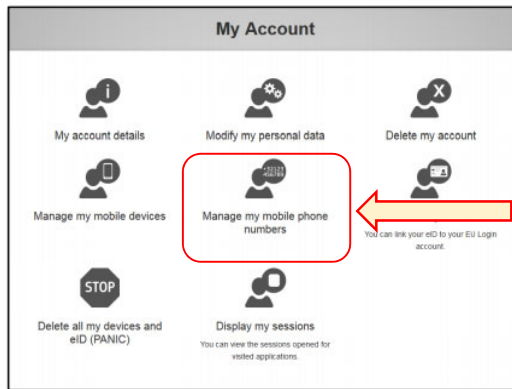
5. In the EU Login mobile app:
 - a. Click 'Initialise'.
 - b. Scan the QR code.
 - c. Enter the same **pin code** that you entered in step 3.
 - d. A notification pops up for a 'pending approval for device registration'. Tap it.
 - e. You can choose to enable biometric authentication.
 - f. Your device is registered and linked to your EU Login account.
6. When device is registered, user can go back to the application he/she wants to use and login using two factor authentication.

ANNEX B: REGISTER A MOBILE PHONE NUMBER

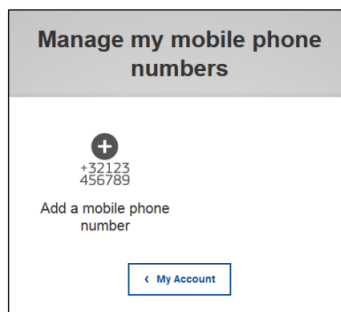
1. User should register mobile device via EU Login-> [My Account](#).



2. User clicks on 'Manage my phone numbers'



3. User adds his/her mobile phone number.



4. When user clicks "Add", an SMS is sent to user's mobile device. The SMS contains a challenge code made of eight characters separated with a hyphen (minus sign).

Add a mobile phone number

Mobile phone number

International format including country code,
e.g. for Belgium: +32 123 45 67 89

Add Cancel

5. User types the challenge code he/she received in the "Text message challenge code" fields and clicks on "Finalise".

Please enter the challenge code that was texted to your mobile phone.

It might take up to 8 minutes for the message to reach your mobile phone.

Mobile phone number

+321234567890

Text message challenge code

Finalise Cancel

6. User should receive a notification message, confirming that his/her mobile phone number is successfully registered and can now be used for authenticating.