



# NI2CE Messenger

NATO Interoperable Instant Communication Environment Messenger

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## How To Guide

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**Version 04 Jul 23**

Contact me at [@jeroen.franssen:matrix.ilab.zone](mailto:@jeroen.franssen:matrix.ilab.zone) if you have suggestions.

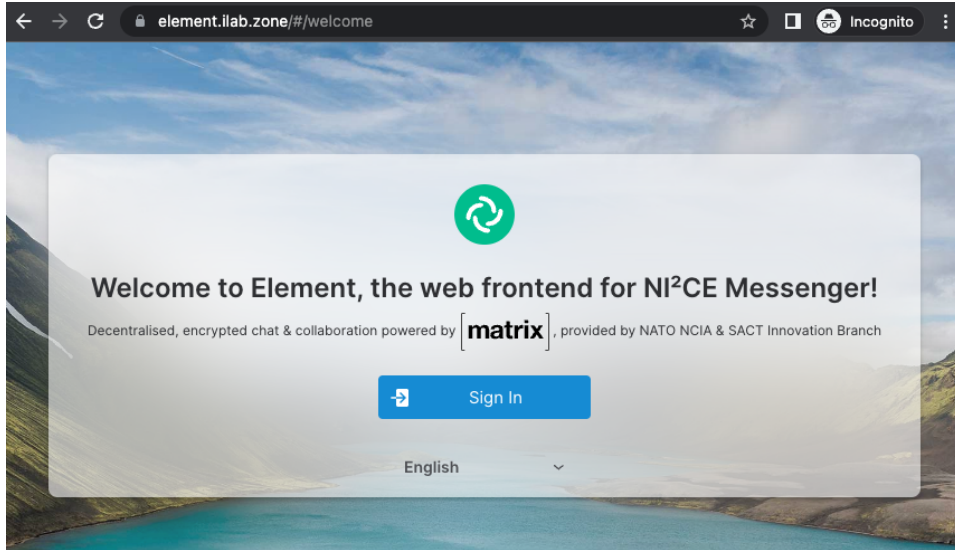
This short **How To Guide** explains the onboarding process for new users on the Matrix MVP hosted on the Innovation Hub infrastructure. For more information about this project, please see [Project Description](#).

### Step 1: Create your account

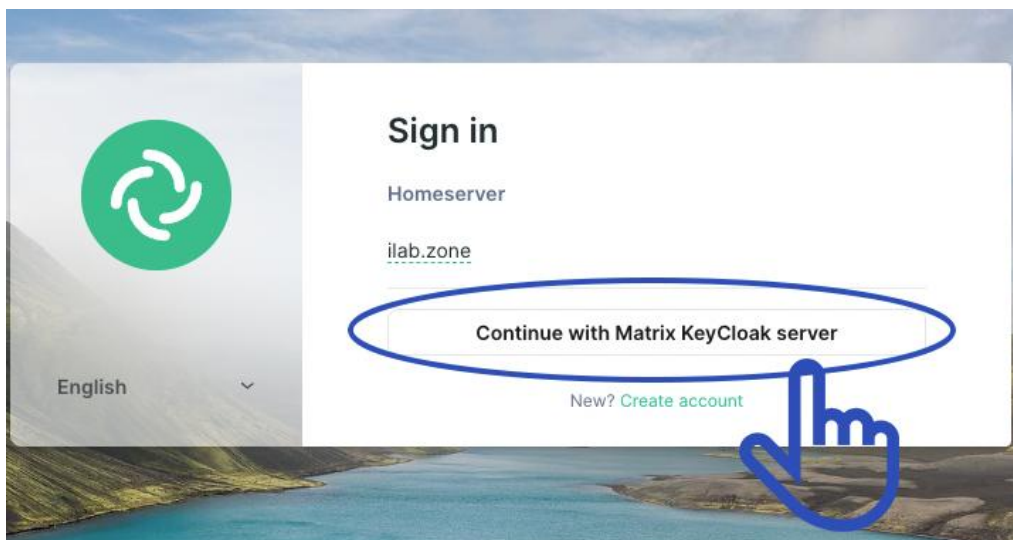
- Before you can start using your Matrix account, you need to register as a user. At the moment, everybody with the following email domain names can self register:
  - [@innovationhub-act.org](mailto:@innovationhub-act.org)
  - [@\\*.nato.int](mailto:@*.nato.int) (so [act.nato.int](mailto:act.nato.int), [ncia.nato.int](mailto:ncia.nato.int), ...)
  - [@mil.be](mailto:@mil.be) (Belgium)
  - [@emfa.pt](mailto:@emfa.pt) (Portuguese Airforce)
  - Several COE's

Contact me or send a mail to [NI2CE@innovationhub-act.org](mailto:NI2CE@innovationhub-act.org) if you want your domain to be added

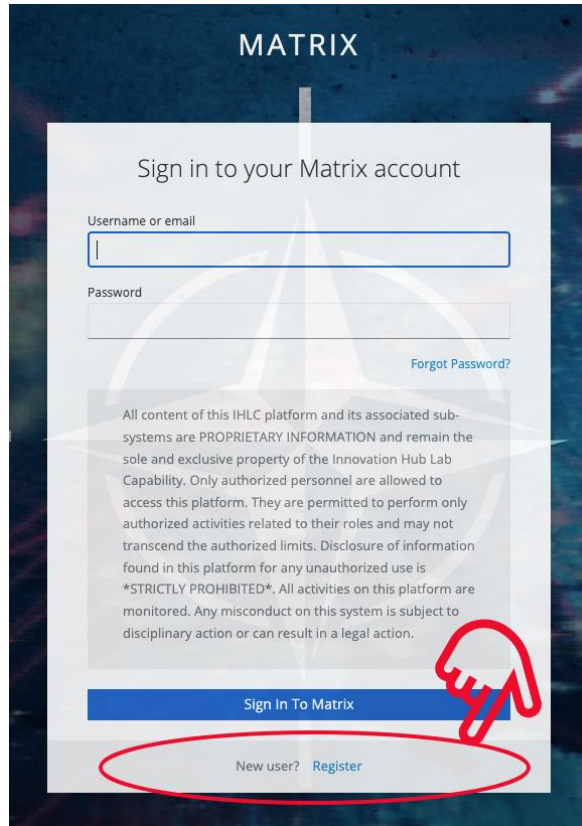
- Go to <https://element.ilab.zone> in the browser you prefer.  
*This doesn't have to be a NATO computer and you can use this service on the internet and on the NU network.*
- Click on "**Sign In**" (see picture below)



- Click on the "**Continue with KeyCloak server**" button. Keycloak is an authentication system that we use for all our MVP's.



- The KeyCloak page opens.



- Click on **“New user? Register”**
- The registration screen opens

Register

\* Required fields

Username \*

Password \*

Confirm password \*

Email \*

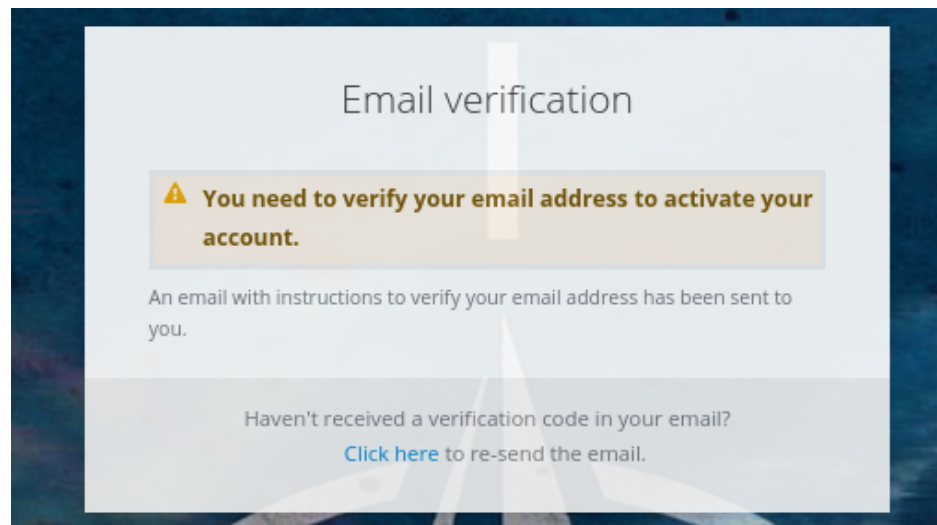
First name \*

Last name \*

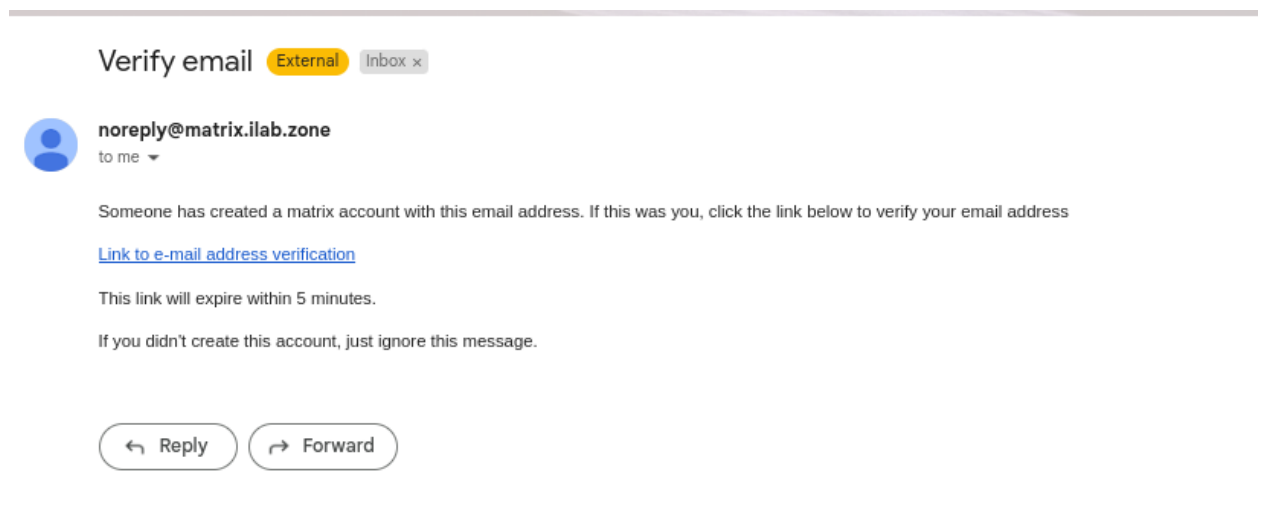
[Back to Login](#)

Register

- Fill in the fields. You can choose your own username. Be careful what you choose, usernames can not be changed afterwards. We suggest you use firstname.lastname but you are free to choose. **Don't use your email address as a username!**
- Click on the bottom on the "Register" link
- The system has created an account and requested you to verify your identity via the link sent to the email address you provided. This is necessary so Keycloak knows it can contact you there for password resets.



- **Important remark:** Please note your password or keep it in a password manager. Resetting will be done via the Keycloak portal.
- You will get an email with a link that needs to be clicked to verify your email address.



- Click on the link to finish the registration process.
- A web page will open that asks final confirmation to link Element and Keycloak:

## Continue to your account

**Username**

@Username:matrix.ilab.zone

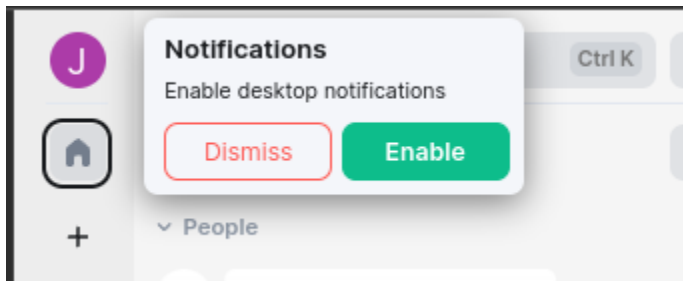
**i** Continuing will grant **element.ilab.zone** access to your account.

Continue

[matrix]

An open network for secure, decentralized communication.  
© 2022 The Matrix.org Foundation C.I.C.

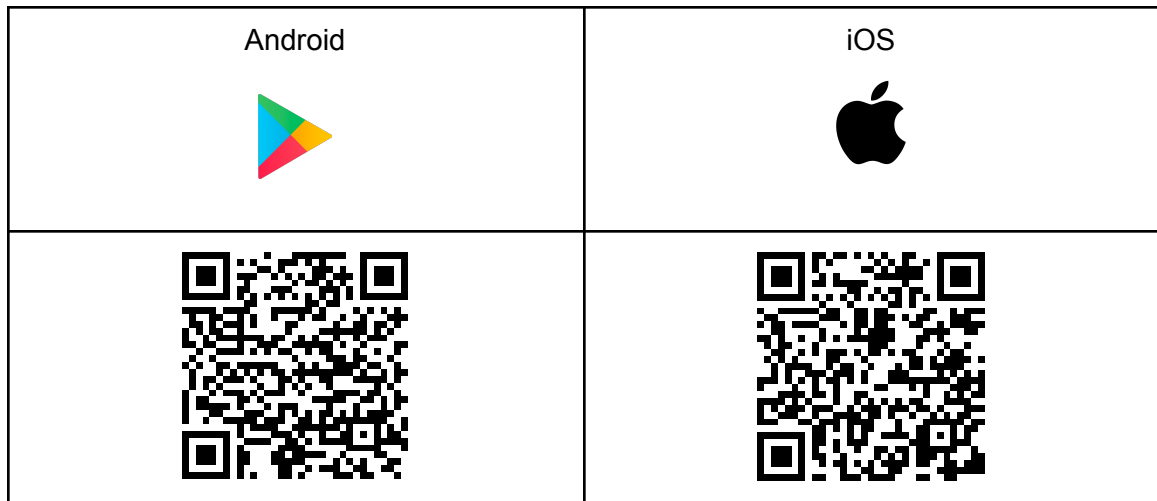
- You should see Element open and get a pop-up to allow your browser to send you Element notifications. Enable them.



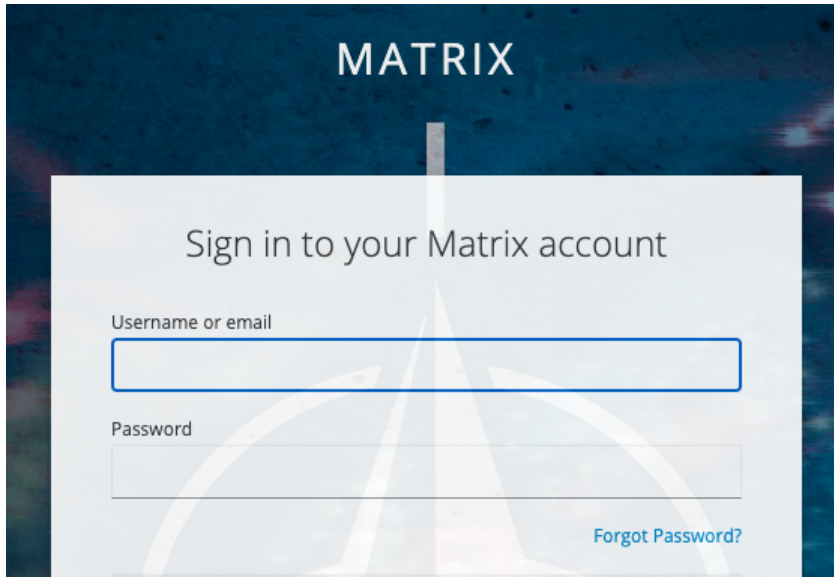
- Your account is now ready! You can connect with Android, iOS and other web browsers as much as you like, with the same security features..
- There is one additional step to do: backup your encryption key. It's important to recover encrypted information if you would lose access to your open sessions. It's very easy, see below for a step-by-step guide.  
Make a backup of your encryption key and encryption password phrase in a safe place..  
The web interface will alert you to do this.

## Step 2 : Login from a mobile device

- You can find the relevant links for desktop applications, mobile applications on this page:[Element secure messenger | Get started](#)
- We have NATO branded applications but you can also use other Matrix compatible applications (Matrix is interoperable by design).  
For installing the NI2CE Android & iOS store applications, you can scan these QR codes or look for NI2CE messenger



- **IMPORTANT if you use another application then NI2CE Messenger**
  - For mobile devices or desktop applications, you'll have to use the "Custom server" option to select our NI<sup>2</sup>CE Messenger server instead of the commonly used matrix.org. Click on Edit and change the server!
  - Use this server:<https://matrix.ilab.zone>.
- When you try to sign-in in the app, NI2CE Messenger will redirect you (again) to the Keycloak for login.
- Click on "Sign in to Matrix"



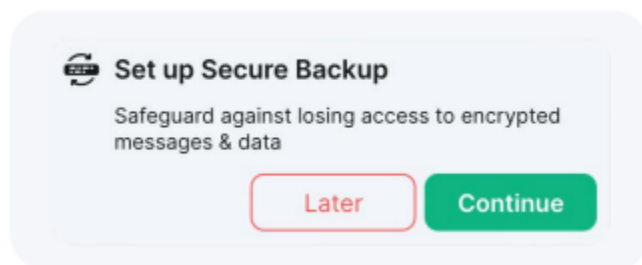
- NI2CE Messenger will detect that you already have an open session and will ask you to verify the new login from your existing session.
- You can do this by clicking on the notification and then use the QR code scanner or compare the emoji. This will allow your Element sessions to remain secure and verify that there is nobody listening to your conversations.
- When you have verified your sessions, encryption keys are distributed automatically and securely and you can chat in encrypted mode in all your NI<sup>2</sup>CE messenger sessions.

## Backup your encryption keys

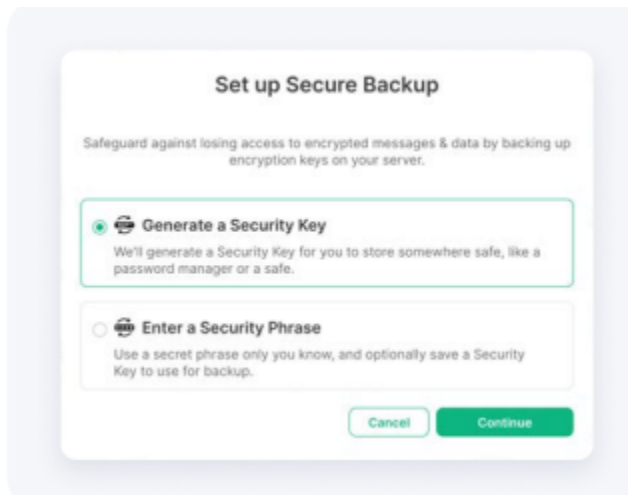
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From the Element manual:

- Secure backup is an important safeguarding step to take, to ensure you never lose access to your encrypted messages and data.
- When setting up your account, a message will appear which prompts you to do so. If you missed the prompt you can set this up from within your security and privacy settings



- Click continue to start this process.
- Choose a memorable security passphrase or security key (for file store).



- This will create an encrypted backup on your server that only you can decrypt.
- The next time you login on a new device or session, simply enter the passphrase or key to verify your session and you'll have access to all of your data.

## Threads

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Element can use threads to better distinguish between different conversations in a room. This feature is for the moment in Beta but it's very mature. You can activate it by going to the Settings menu, clicking on Labs and enabling the Threads feature.

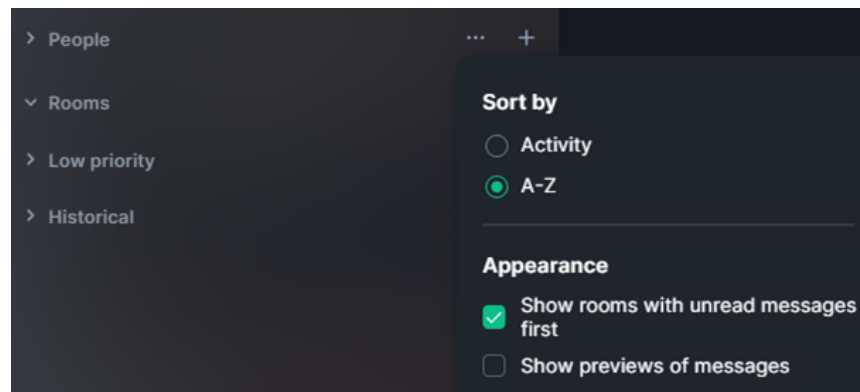
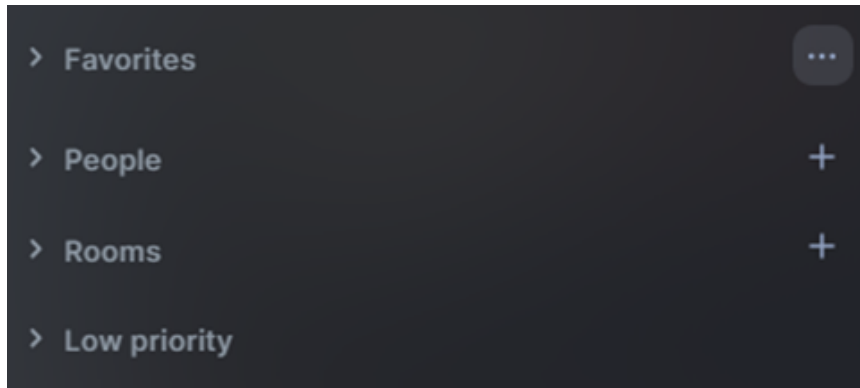
## Categorization of contacts & groups

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You can organize your contacts & groups in a variety of ways.

There is a possibility to favorite or put as low priority and to sort by recent activity or by alphabetical order A-Z.





- Do this by clicking on the three dots button besides groups/favorites/groups

There is also the feature to create Spaces (left column) and add contacts and/or groups from Home to specific spaces. Once groups move there, the contacts (“People”) will remain visible in both the home & the space you created.

## End to end encryption

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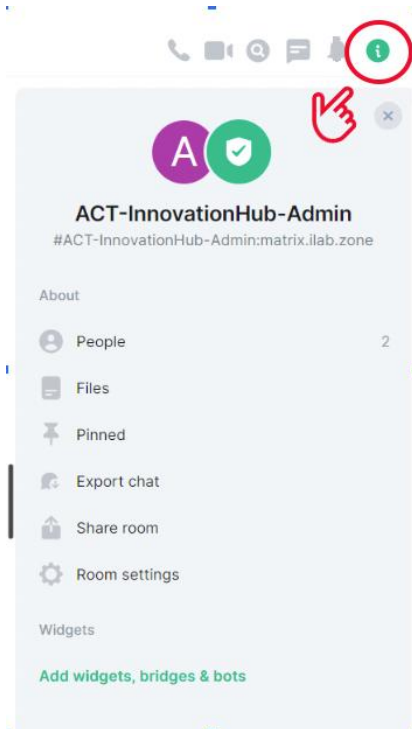
End to end encryption means that your information is encrypted and only readable at the endpoints of the communication link. The transferred data and database content is encrypted and unreadable for somebody who doesn't have your encryption keys.

Matrix uses two layers of protection: the transfer is protected by HTTPS (same technology as your bank website etc) and the e2ee capabilities is the second layer.

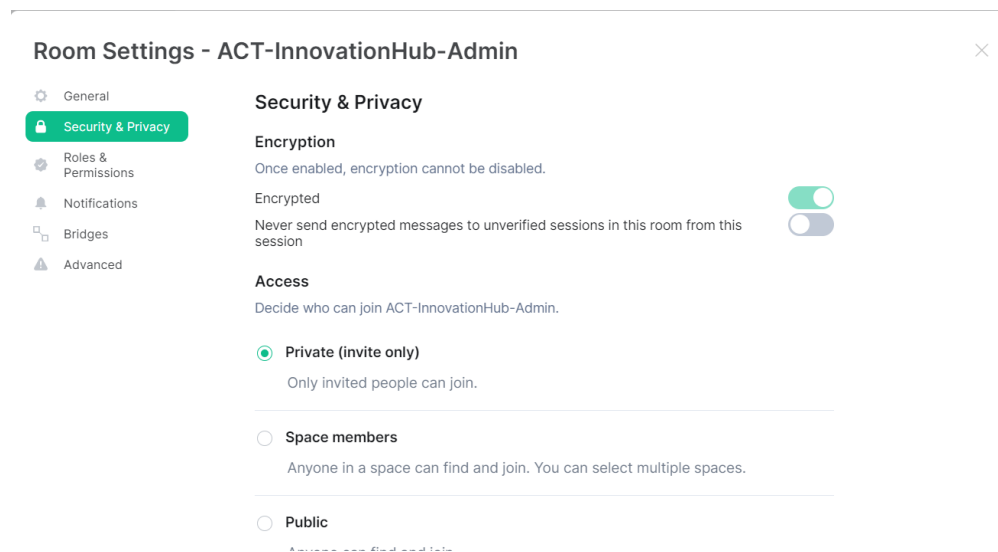
## Enable in room

Make sure that your room is encrypted!

Check this by clicking on the room name or the Information icon.



Click on Settings in the option menu and then select Security & Privacy



Make sure that the Encryption switch is activated.

**Remark:** It's NOT necessary to activate the second toggle (never send encrypted...) as this will disable communication between devices that have not been verified. This is an additional

security feature but doesn't impact the encryption as such and will block you from communicating with unverified other sessions.

## Verify devices

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- You can check for all your logins (or devices) that they are part of your verification chain.
- Do this by opening the settings menu and then open the Security & Privacy tab.
- Here you can see all your sessions. If the shield is green, you are good to go. For black or red sessions, you need to verify the device by selecting it and clicking on verify
- If you no longer want some device to be active, you can force a sign out by selecting the device and clicking on "Sign out".

## Verify users

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You can verify users to make sure that there is no man-in-the-middle ongoing. You can do this by clicking the Room Info button (top right corner in Element Web) and then clicking on People. Then click on the person's name and you'll see the sessions he's using. You can also launch the verification process by clicking on Verify

# Help

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Please review the user guide at [ElementManual](#) for a quick introduction on using Element the best way possible. Interesting sections on how to create Spaces & groups.

## Advanced users

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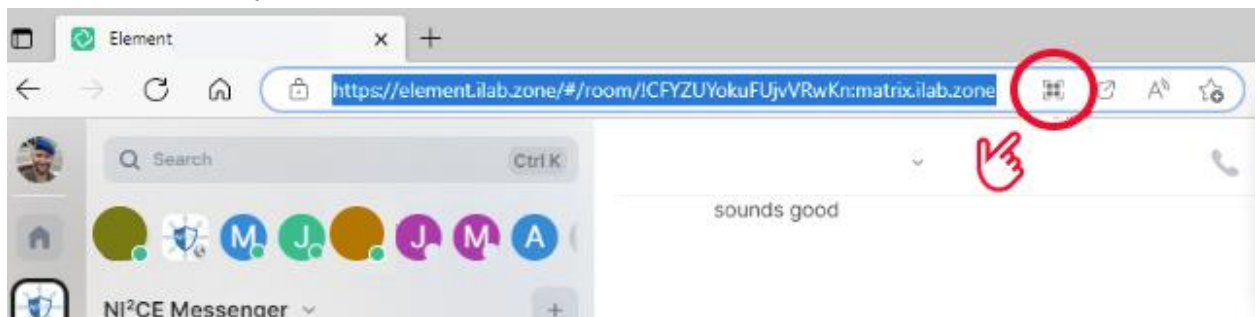
### Install Element as PWA (progressive web application)



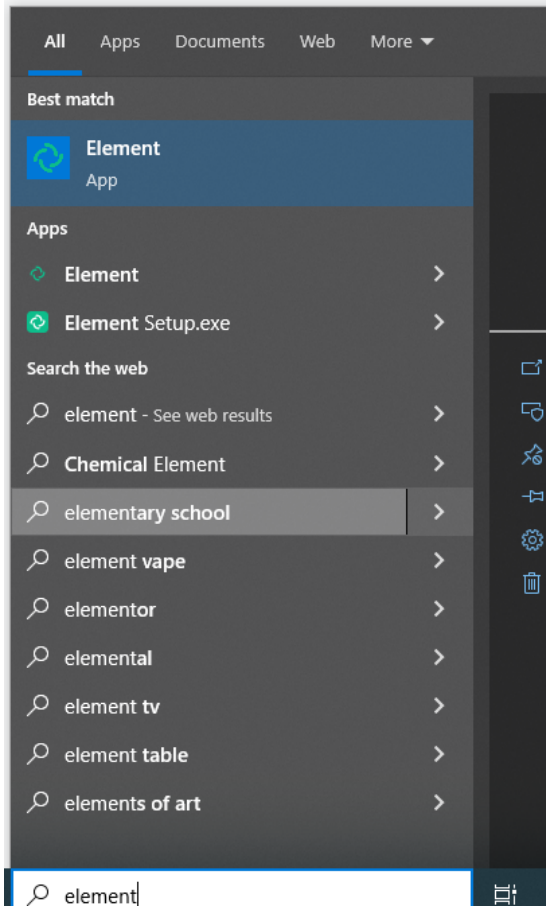
You can install Element on computers with Chrome based browsers, such as Edge, as a progressive web application, also on our NATO UNCLASSIFIED browser. This way it behaves itself like a native windows application, without the need to install anything on your computer.

It's easy to do this with one click:


- Open NI<sup>2</sup>CE Messenger on <https://element.ilab.zone>
- In the address bar, you will see this icon:




- Click on it. It will install Element with a separate icon that you can access in the start menu:



- Right click on the Element icon in the taskbar to pin it there for easier access.

 **iOS** You can install Element on computers with Chrome based browsers, such as Edge, as a progressive web application in the same way.

- Open NI<sup>2</sup>CE Messenger on <https://element.ilab.zone>
- In the address bar, you will see this icon: 
- Click on it. It will install Element with a separate icon that you can access in the Dock.

## Interesting NI<sup>2</sup>CE rooms to join

- Help: #help:matrix.ilab.zone
- Feedback: #requirements:matrix.ilab.zone