## YubiKey Multi-Factor Authentication

for Microsoft Services and TUD account (NetID)



### Manual

### YubiKey MFA-registration

.

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# 1 Introduction

We recommend using Microsoft Authenticator as your verification method, but you can also choose from other options, such as YubiKey. This manual describes how to install and use the Yubikey with the accompanying Vubico Authenticator app when logging in to Microsoft services and business applications such as TOPdesk and Basware Alusta.

#### What do I need to configure YubiKey?

- Display Yubico Authenticator app
 - YubiKey (physical key)
 You can order the Yubikey in the external webshop 'ARP webshop for employees' in <u>Basware</u>.

Unlike the Microsoft Authenticator, YubiKey adds an extra layer of security by using a physical key. This YubiKey must be connected to your device before you can use the **E** Yubico Authenticator.

Follow this guide to use YubiKey as an MFA method for your Microsoft Work account and/or your TUD account (NetID).





# 2 Add YubiKey as MFA method

2.1 Install Yubico Authenticator app - Windows

#### **Windows**

Install the Subject Authenticator app, which can be requested through the Self-Service Portal in TOPdesk: form "<u>Request Software</u>". On your private device, it can be installed via <u>https://software.tudelft.nl</u>. When you open the app, the following screen will appear asking you to connect your YubiKey to your device:



Connect your YubiKey (physical key) to your device. After it has been successfully connected, the **N** Yubico Authenticator app shows an empty screen: "**No accounts**".



#### 2.1 Install Yubico Authenticator app - macOS

#### macOS

Install the M Yubico Authenticator app, which is available in Self Service (or via <u>https://software.tudelft.nl</u> on your private device). Then connect the Yubikey to your device. Once installed, the M Yubico Authenticator requires the following:

• Permission to receive keystrokes from other applications:



Permission to record your computer's screen (for scanning QR codes)



Open the "System Preferences" and make sure Yubico Authenticator is checked:



Finally, the message below will follow to apply the changes. Close the **M** Yubico Authenticator app and restart it with the button "Quit & Reopen":



#### 2.2 Microsoft MFA registration

**Step 1a**: Go to <u>https://aka.ms/mfasetup</u> on a desktop computer or laptop and log in. If you have not yet registered an MFA device (for example, new employees), continue with **step 3**.

Within your Microsoft account it is possible to set up multiple MFA methods (e.g. Microsoft Authenticator + YubiKey). Please note that the **default method** is Microsoft Authenticator. You will always see the Microsoft Authenticator screen first when logging in (see image below). To then use your *other* MFA method, choose "I cant use my Microsoft Authenticator app right now"

-	@tudelft.nl
A	pprove sign in request
0	Open your Authenticator app, and enter the number shown to sign in.
	75
No the	numbers in your app? Make sure to upgrade to latest version.
l ca	n't use my Microsoft Authenticator app right now
Мо	re information

Then choose the other method you configured:



If you only want to use the YubiKey as your MFA-method, remove the existing Microsoft Authenticator MFA method by clicking the "**Delete**" button after you have logged in via <a href="https://aka.ms/mfasetup">https://aka.ms/mfasetup</a>:

fucent   My Sign-	lns 🗸				
R Overview	Security info				
Security info	These are the methods you use to sign into	your account or reset your password.			
Devices	You're using the most advisable sign-in me Sign-in method when most advisable is unavailable: Microsoft /	ethod where it applies. Authenticator - notification Change			
Password	+ Add sign-in method				
Organizations	••• Password (preview)	Last updated: 3 months ago	Change		
Settings & Privacy	Microsoft Authenticator Push multi-factor authentication (MFA)	Pixel 7 Pro		Delete	
Recent activity	Lost device? Sign out everywhere				



Delete auther	nticator a	рр	
Are you sure you would like to delete this method for your account?			
	Ok	Cancel	

Step 2. Click on Add sign-in method: choose Authenticator app and click on "Add"

+ Add sign-in method	1. Klik op Add sign-in method		
•••• Password (preview)	Last updated: 3 months ago	Change	
Lost device? Sign out everywhere		Add a method Which method would you like to add? Authenticator app	X 2. Kies "Authenticator app" ↓ ✓
			Cancel Add

Step 3: Click here on "I want to use a different authentication app"

Microsoft	Authenticator	$\times$
	Start by getting the app	
	On your phone, install the Microsoft Authenticator app. Download now	
	After you install the Microsoft Authenticator app on your device, choose "Next".	
	I want to use a different authenticator app	
	Cancel	

Step 4a: The following screen will now be shown. Click "Next":

Authentica	ator app	$\times$
)	Set up your account In your app, add a new account. Back Next	

#### 4b. A QR code is now shown.

Authenticator-app	$\times$
De QR-code scannen	
Gebruik de Authenticator-app om de QR-code te scannen. Hierdoor wordt de Authenticator-app verbonden met uw account.	
Nadat u de QR-code hebt gescand, kiest u Volgende.	
Kan de afbeelding niet worden gescand?	
Vorige Volgend	le

Step 5: Now open the M Yubico Authenticator app on your desktop/laptop and click on the following button:



**Step 7:** The Nubico Authenticator (right) now shows two options. Choose "Scan QR code" while your browser is open (left). In this way, the Nubico Authenticator automatically takes over the data by scanning the QR code on your screen.

Factory reset this application

Set password Optional password protection

Reset OATH

Ē



If this is done successfully, the data will be filled in automatically:

🕏 Yubico Authenticator	-		×
× Add account			Save
- Issuer (optional)			
💼 Microsoft			
		ç	/44
Account name &  where the second sec			
		19	/54
Secret key			0
Require touch Time based	•	SHA-1	•

If desired, you can choose in this screen that a "Touch" action is always required. This means that you must first physically touch the YubiKey on the "touch" part before a code is generated that you can use to log in. The rest of this manual is based on the "**Require touch**" option.

Finally, click on "Save" at the top right.

Your Microsoft account is now added and visible in the M Yubico Authenticator app:

-		×
	$\supset$	큪
	2	
	-	

Step 8a: Now go back to the browser and click on "Next":

Authenticator app	×
Scan the QR code	
Use the authenticator app to scan the QR code. This will connect your authenticator app with your account.	
After you scan the QR code, choose "Next".	
Can't scan image?	
Back	ext

**8b:** In this next screen you will be asked for a 6-digit code.

Authenti	cator app		×
xxx xxx _	Enter code Enter the 6-digit code shown in the Authenticator app. Enter code		
		Back	Next

8c: Return to the Symbol Vubico Authenticator app. Click on the following button to generate a 6-digit code:



8d: E Yubico Authenticator requires a "touch" on your physical key. Touch the "button" on your physical key.



**8e:** The 6-digit code was generated in the **Nubico Authenticator** app (right). Click on **"Copy to clipboard**" and now paste this code into the browser (left). Then click **Next** in the browser:

	💽 Yubico Authenticator 🦳 — 🗆 🗙
your account or reset your password. hethod where it applies. Authentiator - netflation Charge	● 140 096 Microsoft
Last updated: 3 months ago	Actions
Poter 7 Authenticator app	Copy to clipboard Easily paste the code into another app
XXX XXX         Enter code           Enter the 6-digit code shown in the Authenticator app.	Calculate Get a new code from your YubiKey
140096	Fin account Keep your important accounts together
Back Next	Rename account Edit the issuer/name of the account
	Delete account Remove the account from your YubiKey
	X Close

The connection is now made. If this is done successfully, a message will appear at the top right of your browser "Authenticator app was successfully registered":



#### Success! Click on "Done"

YubiKey is now successfully configured as an authenticator. Every time you sign in to your Microsoft Work or School account, you'll be asked to enter a verification code from the S Yubico Authenticator app. <u>Please note:</u> the Yubico Authenticator app can only be used in combination with your physical key. You must therefore always connect this to your device to be able to use the functionalities of the app.

#### 2.3 TUD account (NetID) MFA registration

You will have to log in with a NetID account to all TU Delft services that require a login. This NetID is a personal account that is linked to the registration of your commitment to TU Delft.

With your NetID and password you can log in to all services via the "Single Sign On - SSO" principle. When you register for a TU Delft service, such as BrightSpace or the intranet, you will see a login page of 'login.tudelft.nl':

<b>T</b> UDelft					
Meld u aan vo	or toegang tot beveiligde diensten				
Gebruikersnaam	uw NetID				
Wachtwoord	uw wachtwoord				
	Inloggen				

An additional security measure will be applied to a number of services provided by TU Delft when registering via SSO. This includes services such as "eduVPN" for which it is important to apply a second factor of authentication (the full <u>TUD MFA manual</u> can be found <u>here</u>).

To configure **YubiKey** for your TUD account (NetID), follow the steps below.

**Step 1:** Go to <u>https://login.tudelft.nl/mfa/</u>. You will arrive at the following page:



Step 1a: To change your MFA settings, click on "Change current 2-factor verification method"

<u>Please note:</u> Only one authenticator can be registered. To use Yubikey as an authenticator, you must first delete the current registration.

**Step 2:** Remove your current authenticator by clicking the "**Remove**" button. Then confirm this Action by clicking "**Ok**".

		Active
	Authenticator app	
2	A more secure, reliable and faster alternative is to use an Authenticator app on your mobile phone.	
	With this option a one-time code will be generated in the registered Authenticator app. The advised app to use is the Microsoft Authenticator app* that is available on IOS and Android	
	* Other Authenticator apps that support TOTP can be used as well, but will not be supported.	
	Reed help to register the Authenticator app?           Read here how to register and use the Microsoft Authenticator app.	×
	Authenticator registered on March 5, 2024, 11:13 a.m.	i Remove
	Only one authenticator can be registered. Please remove it if you want to renew the authenticator.	

#### Step 3: Now click on the "Add" button:

Choose yo	ur preferred method for 2-factor authentication
0	Authenticator app A more secure, reliable and faster alternative is to use an Authenticator app on your mobile phone. With this option a one-time code will be generated in the registered Authenticator app. The advised app to use is the Microsoft Authenticator app* that is available on iOS and Android
	* Other Authenticator apps that support TOTP can be used as well, but will not be supported.           Need help to register the Authenticator app?       X         Read here how to register and use the Microsoft Authenticator app.       X
	Add

Step 4: A QR code will be shown in your browser:

Authenticator Activation for account '
Step 1
In order to activate 2FA, it is needed to add an account to the Microsoft Authenticator app (or other authenticator app that you prefer). Please scan the QR-code you find here below, with the authenticator app. You can find the instructions here: /mfa/twofactor/explain/authenticator/.
Showscret
A new entry will be added in your authenticator showing "ogin tudefit-Inl (agorgees)"
Step 2
Enter the code from the authenticator
G simplified input field
Cancel



Step 5: Now open the M Yubico Authenticator app on your desktop/laptop and click on the following button:

Windows 10

Windows 11

#### Step 6: Click on "Add account"



Step 7: The Nubico Authenticator (right) toont nu twee opties. Choose "Scan QR code" while your browser is open (left). In this way, the Nubico Authenticator automatically takes over the data by scanning the QR code on your screen.

Authenticator Activation for account	Vubico Authenticator – – ×
Step 1	To scan a QR code, make sure the full code is visible
in order to activate 2FA, it is needed to add an account to the Microsoft Authenticator app (or other authentic mfa/twofactor/explain/authenticator/.	do no screen and press the button below. You can also drag a saved image from a folder onto this dialog. If you have the account credential details in writing, use the manual entry instead.
	🐹 Scan QR code 🖉 Add manually
Show secret	
Step 2	
Enter the code from the authenticator	
Confirm	
Simplified input field	L]

**Step 7a:** If this is done successfully, the data will be filled in automatically:

🐻 Yubico Authenticator	-		×
× Add account			Save
Issuer (optional)			
login.tudelft.nl			
		16	/55
- Account name			
		8	/47
C Secret key			
O <del></del>	•••••	••••	0
Require touch Time based	• )[ si	HA-1	-
30 sec 👻 6 digits 👻			

Finally, click on "**Save**" at the top right. Your TUD account (NetID) has now been added and visible the **M** Yubico Authenticator app:



**Step 8:** Now copy the 6-digit code from the Myubico Authenticator app and paste it into the browser (*tip: to quickly copy the code from the authenticator; click on the 6-digit code and keep it pressed until a message appears "Code copied to clipboard"):* 

Step 2
Enter the code from the authenticator
Confirm
Simplified input field
Cancel

**Step 9:** Congratulations! 2FA is now activated for your NetID. If an application requires a strong form of authentication, you will now be asked for the code which you can find in the **E** Yubico Authenticator app.

Authenticator Activation	
Activated Congratulations! (Improved) 2FA has been activated for your NetID. Where an application requires strong authentication, you will now be asked to fill in the code as generated by the authenticator app.	
Ok	

Finally, a confirmation email will follow. This is an automated security process to confirm that the 2FA has been changed.



## 3 Yubico Authenticator on smartphone (Android/iOS)

The Nubico Authenticator app can also be used on a smartphone (Android/iOS) provided it supports NFC. After the YubiKey has been successfully configured as an authenticator as described in the previous chapter, you can download the app from the Play Store/App Store. Then follow the next steps:

- 1. Open the Subject Authenticator app on your smartphone
- 2. Hold your physical YubiKey against the NFC reader of your smartphone (usually on the back of your smartphone)
- 3. Your account will automatically load in the app. You will immediately see a 6-digit code that you can use. This is valid for **30 seconds**
- 4. Once the timer expires, this code can no longer be used. To generate a new code, tap the expired code and choose "Calculate" (Get a new code from your YubiKey).

The data from your YubiKey accounts will not remain stored in the app. You must go through these steps every time to generate a code when using the smartphone app.

## 4 Remove YubiKey as MFA-method

<u>Please note</u>: to prevent you from no longer having access to your account, you must always first remove the MFA method within your Microsoft or TUD account (NetID) before removing it within the **E** Yubico Authenticator.

#### Step 1a. For Microsoft account:

Go to <u>https://aka.ms/mfasetup</u> and log in. You will arrive at the screen below. Remove the existing YubiKey MFA method by clicking the "**Delete**" button:

Q Overview	Security info
$\mathcal{P}_{\!\!\mathcal{P}}$ Security info	These are the methods you use to sign into your account or reset your password.
💻 Devices	You're using the most advisable sign-in method where it applies. Sign-in method when most advisable is unavallable: Authenticator app or hardware token - code
🔍 Password	+ Add sign-in method
Organizations	Password (preview)         Last updated: 3 months ago         Change
A Settings & Privacy	Authenticator app Time-based one-time password (TOTP)
<ol> <li>Recent activity</li> </ol>	Lost device? Sign out everywhere

A notification will follow that it has been successfully deleted at the top right of the screen:



#### Step 1b. For TUD Account (NetID)

Ga naar <u>https://login.tudelft.nl/mfa/</u> and log in. Click on the "**Remove**" button as shown below:



Then confirm this action by clicking "Ok".

**Step 2.** Now go to your Mubico Authenticator and click on this button (if requested, verify by touching the "button" on your YubiKey):



Step 3a. In the following screen, choose "Delete account":

💽 Yubico	Authenticator	-		×
	● 140 09	6		
	Microsoft @tudelft.	nl		
Actio	ns			
0	Copy to clipboard Easily paste the code into	anothe	r app	
C	Calculate Get a new code from your	YubiKe	ey.	
푸	Pin account Keep your important acco	unts to	gether	
1	Rename account Edit the issuer/name of th	e accou	int	
0	Delete account Remove the account from	your Y	ubiKey	
X Close				

**Step 3b.** To prevent you from no longer having access to your account, you will receive a warning that you must always first remove the MFA method within your account (Microsoft and/or TUD account) before removing it within the **E** Yubico Authenticator. Click on "**Delete**".

🐻 Yubi	co Authenticator	—		×
×	Delete account		I	Delete
Warning! This action will delete the account from your YubiKey.				
You will no longer be able to generate OTPs for this account. Make sure to first disable this credential from the website to avoid being locked out of your account.				
Account: Microsoft (				

YubiKey has now been successfully removed as an MFA authentication method.

### 5 Problems

#### 5.1 Change MFA-method:

#### **Microsoft MFA**

If you previously set up an MFA registration and want to change or transfer your MFA settings to another device. Then you can visit the Microsoft MFA environment self-service portal at: <u>https://aka.ms/mfasetup</u>

#### **TUD account MFA (NetID)**

To change your MFA registration for your TUD account, go to: https://login.tudelft.nl/mfa/.

#### 5.2 Lost your YubiKey physical key

If you have lost your physical key, it is wise to reset the MFA of your accounts linked to your YubiKey.

#### **Microsoft MFA**

Go to <u>https://aka.ms/mfasetup</u> and log in with your netID. The next screen will appear, choose 'I can't use my Microsoft Authenticator app right now':

<b>f</b> uDelft				
etudelft.nl				
Approve sign in request				
Open your Authenticator app, and enter the number shown to sign in.				
40				
No numbers in your app? Make sure to upgrade to the latest version.				
I can't use my Microsoft Authenticator app right now				
More information				

Choose the option to receive an SMS:



Enter the code that you have just received:

<b>Ť</b> uDelft	
← aggegene@tudelft.nl	
Enter code	
We texted your phone +XX XXXXXXX enter the code to sign in.	76. Please
Code	
More information	
	Verify

You are now successfully logged into your Microsoft account. Remove the YubiKey authentication method as described in chapter 4.

If you have lost your YubiKey with your MFA profile(s) **and** you cannot use your mobile number to register a new device, you will need to contact your faculty service point to request an MFA change.

You are hereby requested to verify your identity and details with one of our colleagues. After it has been confirmed that you are the owner, one of our service point colleagues can help you further.